DOCUMENT RESUME

ED 177 079 SO 012 023

AUTHOR	Francese, Peter K.
TITLE	The 1980 Census: The Counting of America. Population Bulletin, Vol. 34, No. 4.
INSTITUTION	Population Reference Bureau, Inc., Washington, D.C.
PUB DATE	Sep 79
NOTE	45p.; Census questionnaire marginally legible
AVAILABLE FROM	Circulation Department, Population Reference Bureau, Inc., 1337 Connecticut Avenue N.W., Washington, D.C. 20036 ($2.00, quantity discounts available)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Adult Education; *Census Figures; *Demography; *Population Education; Population Growth; Population Trends; Questionnaires; Secondary Education
IDENTIFIERS	*Census 1980; *Census Bureau

ABSTRACT

The booklet describes the United States Census Bureau program for conducting and making available the results of the 1980 census which will attempt to reach 80 million households. It examines in detail the questionnaire itself, the planning that went into it, the Census Bureau plans and programs for eliciting public cooperation and finding everybody, how the 1980 results will be processed and published, and how they can be obtained. It covers the importance of the census results for public programs ranging from Congressional reapportionment and federal revenue sharing to local services planning and private businesses, and describes the census geography and computerized address coding systems devised by the Census Bureau which make it possible to handle a census of this size by mail. The conclusion discusses plans for the first United States mid-decade census in 1985, and summarizes the importance of the 1980 census as a measure of dramatic change in demographic, political, and statistical factors. Three appendices are included which list printed reports and computer tapes for the 1980 census, regional data user services officers and U.S. Department of Commerce district offices, and census reference works. The complete 1980 questionnaire is reproduced and annotated. (Author/CK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED177079

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Robert Worrall
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

POPULATION BULLETIN

THE 1980 CENSUS:

THE COUNTING OF AMERICA

A publication of the Population Reference Bureau, Inc.
Vol. 34, No. 4
September 1979

ISSN 0032-468X

SP 012 023

The 1980 Census: The Counting of America

By Peter K. Francese

Abstract—Centered on April 1, 1980, the 20th decennial census of the United States comes at a time of rapid demographic, social, and technological change, coupled with growing public and private demands for accurate population data while at the same time public suspicion of federal government activities has increased. This *Bulletin* describes the Census Bureau program for meeting these challenges and conducting and making available the results of an operation that will attempt to reach some 80 million households with a mailed questionnaire and cost nearly $1 billion. It examines in detail the questionnaire itself and the planning that went into it; the Census Bureau plans and programs for eliciting public cooperation and finding everybody in an effort to increase coverage even beyond the estimated 97.5 percent coverage of the 1970 Census; how the 1980 Census results will be processed and published, how they can be obtained, and their importance for public programs ranging from Congressional reapportionment and federal revenue sharing to local services planning, and for private businesses of all kinds; and the census geography and revolutionary computerized address coding systems devised by the Census Bureau which make it possible to handle a census of this size largely by mail. The conclusion briefly discusses plans for the first U.S. mid-decade census in 1985 and summarizes the issues that will make the 1980 Census "the most dramatic, important, and closely observed in U.S. history."

The *Population Bulletin* is published in six issues per volume and is distributed along with the other publications listed on the back cover to all members of the Population Reference Bureau. If you would like to order additional copies of this *Bulletin* or join the Bureau if you are not already a member, write the Circulation Department, Population Reference Bureau, Inc., 1337 Connecticut Avenue N.W., Washington, D.C. 20036. Individual Bureau memberships are $25 per year; $15 for college teachers; $10 for school teachers; $5 for all students. Rates for school, university, and public libraries are $30; institutions or firms, $100. Single copies of the *Population Bulletin* are $2.00; 2-49 copies, $1.75 each; 50 copies or more, $1.50 each. For information on other recent *Bulletins* and the *PRB Slide Series*, see page 40.

Editor: Jean van der Tak
Assistant Editor: Arthur Haupt
Graphics: James O'Brien

The suggested citation, if you quote from this publication, is: Peter K. Francese, "The 1980 Census: The Counting of America," *Population Bulletin*, Vol. 34, No. 4 (Population Reference Bureau, Inc., Washington, D.C., 1979). The figures from this *Bulletin* may be freely reproduced provided credit is given to the Population Reference Bureau and a copy of the publication in which they appear is forwarded to the Bureau.

If you plan to change your address, send your current PRB address label and new address; please allow a month for the change to be accomplished.

The *Population Bulletin* is indexed in *Social Sciences Index*, *Population Index*, and *Social Sciences Citation Index*. It is included in the coverage of *Current Contents/ Social Behavioral Sciences*, Biosciences Information Service of Biological Abstracts, and the CICRED/UNFPA *Review of Population Reviews*, and is available on microfilm from Xerox University Microfilms, 300 North Zeeb, Ann Arbor, MI 48106. Selected *Bulletins* are also included in the coverage of and available in microfiche through ERIC Systems.

Contents

	Page
Introduction	3
The background	4
Why a census?	4
Planning for the Census	7
Planning the questionnaire	7
Finding everybody	8
The Minority Statistics Program	10
Local review	11
Processing the Census Results	11
Uses of the Census	12
The 1980 Questionnaire	14
Questions asked of everybody	15
"Head of household" eliminated	16
Questionnaire reproduced	16
Census Products and Services	24
Computer tape	24
Data User Services Division	26
Census Geography	29
Address coding	30
1985 and Beyond	31
The undercount	32
New pressures	33
Appendix A. Printed Reports and Computer Tapes for the 1980 Census	34
Appendix B. Regional Data User Services Officers and U.S. Department of Commerce District Offices	36
Appendix C. Census Reference Works	39

Figures

1. Spanish Origin Question	8
2. The 1980 Census Questionnaire/Annotated	18
3. Census Printed Reports and Computer Tapes	25
4. Data User Services Division: U.S. Bureau of the Census	27
5. Census Geography	28

Photo credits: p. 2, Russ Hamilton for *American Demographics;* all other photos, Fred Gatlin for U.S. Bureau of the Census. *Cartoons:* p. 13, Ralph Dunagin, reproduced by permission of the Field Newspaper Syndicate; p. 34, Bettman Archives.

The 1980 Census: The Counting of America

By **Peter K. Francese**

American Demographics
Ithaca, N.Y.

Mr. Francese is publisher of American Demographics *magazine and president of American Demographics, Inc., P.O. Box 68, Ithaca, New York 14850. Published ten times a year,* American Demographics *magazine is written to serve the people who produce, analyze and use demographic information in business and government.*

Mr. Francese serves on the Census Bureau's Population Advisory Committee and has served as chairman of its Committee on Small Area Statistics. He is a member of the Population Association of America, the American Statistical Association, and the American Planning Association.

Mr. Francese has worked as a consultant in the demographic data field, and has worked for several public and private organizations. He holds a Master of Regional Planning degree from Cornell University, a Bachelor of Civil Engineering from Rensselaer Polytechnic Institute, and a Bachelor of Science in Physics from Washington and Lee University.

Mr. Francese wishes to acknowledge the editorial assistance of Bryant Robey, Editor, and Penelope Crissman, Copy Editor, of American Demographics *magazine, and the helpful comments received from Conrad Taeuber in the preparation of this* Bulletin. *Further, the* Bulletin *would not have been possible without the cooperation and assistance of a large number of people at the Bureau of the Census. However, the responsibility for all opinions expressed herein and any errors or omissions rests with the author.*

The most popular television program ever, "Roots," had an audience of only about half of all U.S. households. But the Census Bureau will attempt on April 1 of 1980 to reach every single one of the estimated 80 million American households and get them to fill out a questionnaire for our country's 20th decennial census. That is the goal, at least.

In reality the goal is never quite reached, just as no other activity can ever reach 100 percent of a people as diverse, mobile, and independent as Americans. In the 1970 Census, 97.5 percent of the population was counted, as nearly as Census Bureau researchers could estimate, with proportionately more blacks than whites being missed. For 1980, the Census Bureau will hire more than a quarter of a million enumerators and spend almost $1 billion to see that the coverage of what are expected to be about 222 million people is even closer to the elusive 100 percent.

The reason the government is trying so hard to count everyone lies in the high value census information has for our complex and changing society. Population and housing statistics from the decennial census and the estimates based on them in the intervening years have become an integral part of planning for virtually every government program and every consumer product or service.

The 1980 census will provide a statistical snapshot at a time of unprecedented demographic change. The U.S. birth rate is now the lowest it has ever been; life expectancy is rising. The South and West have become the nation's growth areas, and there is migration out of the older population centers of the Northeast and North Central states. Total U.S. population is growing by less than 1 percent a year; but households are growing at over 2 percent a year. The 1980 Census will measure

these trends with a precision that cannot be achieved otherwise, will provide data to clarify the trends, and thus give us all a basis for adjusting plans and programs accordingly.

The background

The clarity of the snapshot, of course, depends ultimately on the cooperation of the people who fill out the questionnaire. It also depends on the skills and experience of the Bureau of the Census. The Census Bureau has had considerable practice in counting people. There have been decennial censuses since 1790 but in the early decades they were rather ad hoc affairs when compared with today's efforts. Censuses were conducted by U.S. Marshals until special census agents were hired for the first time in 1880. Since we were an essentially rural and lightly populated country during our first 100 years, the census was far from the massive operation it has become.

But with the turn of the century came the realization that accurate national statistics were essential to the functioning of a growing industrial nation. The Census Bureau was permanently established in 1902, was made part of the Department of Commerce and Labor in 1903, and was assigned to the newly created Department of Commerce in 1913. In addition to taking the decennial Census of Population and Housing, the Bureau conducts the Economic Censuses, a Census of Agriculture, and a Census of Governments every five years, as well as hundreds of surveys, some as often as once a month.

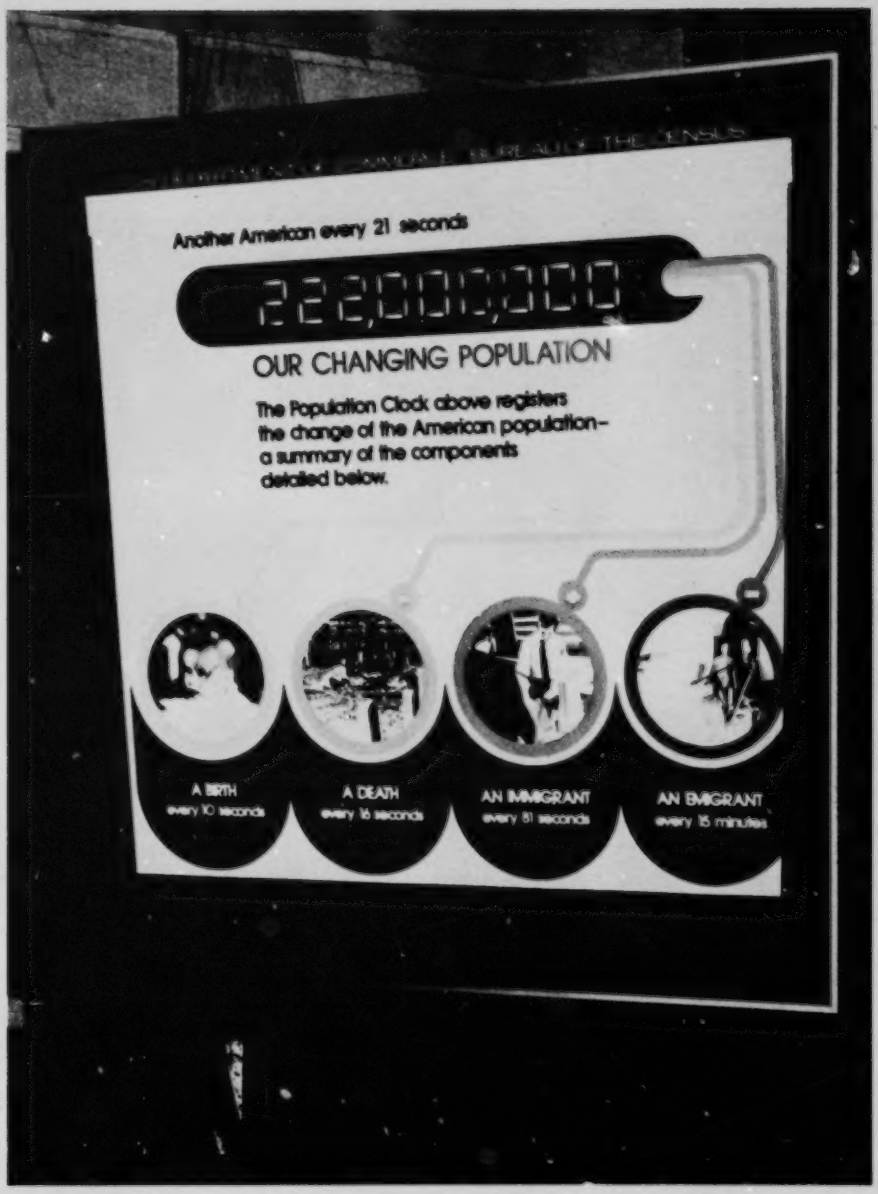
Taking the census balances the government's need to have statistical information against the citizen's right to privacy. The same law (Title 13, U.S. Code) that requires public cooperation with the census also protects the confidentiality of individual information. Respecting privacy is thus translated into the Census Bureau's pledge of confidentiality, a cornerstone of citizen cooperation. Information on individual census questionnaires is used for statistical purposes only and any data that can be linked to any individual are not given or sold to anyone.

Persuading the public of this fact in 1980 may prove more difficult than in the past, given the distrust of the federal government that has arisen in recent years and the rapid developments in computer data storage and processing. Although civil libertarians warn of the potential dangers of collecting and storing census information on individuals, they agree that never has the Census Bureau allowed such data to find their way into the records of other agencies or even to be seen by them. Nevertheless, public perception does not necessarily make distinctions among branches of the federal government.

Why a census?

That census statistics are vital not only to federal agencies and large corporations but also to the general public is beyond question. They determine the apportionment of seats in the House of Representatives and are the basis for drawing political boundaries for state legislatures as well as local election districts. In addition, they are used to allocate more than $50 billion each year from the federal government to state and local governments. These allocations affect the level of services to people and, therefore, the local and state taxes they must pay.

Beyond reapportionment, the program most directly tied to Census Bureau statistics is revenue sharing. Since its inception in 1974, the revenue-sharing program alone has dispensed nearly $40 billion to approximately 39,000 local governments. The allocation is based on a complicated formula which weighs


Another American every 21 seconds
222,000,000
OUR CHANGING POPULATION
The Population Clock above registers the change of the American population– a summary of the components detailed below.
A BIRTH every 10 seconds
A DEATH every 16 seconds
AN IMMIGRANT every 81 seconds
AN EMIGRANT every 15 minutes

On Census Day, April 1, 1980, the reading for the total U.S. population on this clock at the Department of Commerce Washington D.C. headquarters is expected to be about 222 million.

several factors. Two of the more important are population and per capita income—both provided by the Census Bureau. Some people may think the Bureau is snooping when it asks how much money they made last year, but the information, in statistical form, is an essential ingredient in the formula for what is certainly the largest federal program to assist local governments.

The Census Bureau faces its greatest problems getting cooperation in inner cities, where suspicion of government data collectors is greatest. Many of our nation's cities have been in difficult financial circumstances for some time. A complete census will do more to assure them of their fair share of federal funding than any single event for the next decade, barring a dramatic shift in urban policies. On the other hand, failure to support the census will almost certainly result in further handicapping municipalities in their struggle to combat urban decay. It is a dilemma.

Showing people that they should take the time to inform themselves of the importance of the census is probably the Bureau's biggest task. To begin with, it is the Census Bureau's job to prepare an easily understandable questionnaire, make it available in sufficient quantity, and to provide assistance to people who need help in filling it out. After the census, it is the Bureau's responsibility to tabulate the statistical data. The U.S. Postal Service has been assigned the task of delivering the questionnaires and picking them up, like any other piece of mail, for all but 10 percent of the country, where census enumerators will collect the completed forms. The news media will be provided with a full-scale publicity campaign with which to inform everyone that the census is taking place and that it is important for everyone to fill out the form.

But, the respondent has the most fundamental responsibility of all—to fill out the questionnaire and put it into the mailbox. In the end, the responsibility for a successful census rests with every American. Census Director Vincent P. Barabba has said, "Everyone has a right to be counted, but you can't force people to be counted."

Complete census coverage in the nation's cities will help assure them of their fair share of federal funding.

Planning for the Census

Although the census comes to public attention for only a few months every decade, it is virtually an around-the-clock operation for several years. Its magnitude can scarcely be grasped, nor the incredible detail required to achieve accuracy. We like to think that computers can solve our biggest problems in only a few seconds. The Census Bureau's computer will work for 2,000 hours just to prepare the addresses used to mail the questionnaires. And, if you were to put all the questionnaires end to end, they would stretch more than 38,000 miles—around the equator one and a half times, and a little further.

It will cost between four and five dollars per person to take the 1980 Census, a substantial increase over the previous census. About one-fourth of that some $1 billion will be spent on improving the coverage—trying to find every household and person in the U.S. and count them.

Planning the questionnaire

The first effort in planning for the census is, of course, to provide a simple, easy-to-complete questionnaire that is as short as possible but provides reliable and needed information. To this end, the Census Bureau began as early as 1974 to gather suggestions on what should be asked and what information was no longer needed. After more than 70 public meetings across the country, some questions were dropped and several more were added. For example, there is no longer a need to ask people whether they have a television set in the home; virtually every household has one. Questions on appliance ownership were also dropped. But several questions were added to try to measure total shelter costs, reflecting a need for better data in the face of rising housing costs.

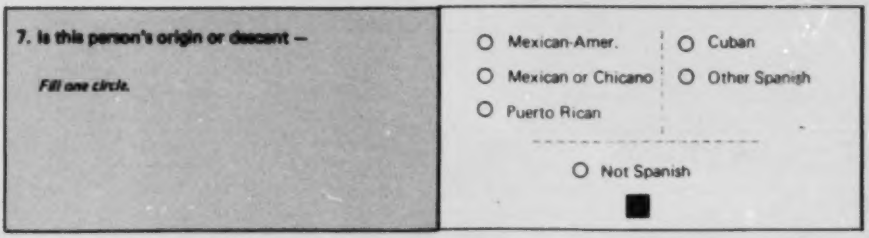
Beginning in 1975, the Census Bureau conducted several national tests of the content of the questionnaires. Different questionnaires were mailed to selected groups of 14,000 households to test response rates and validity of the data. In addition, the Bureau ran several tests of enumeration methods to find the best ways of distributing and collecting questionnaires and improving coverage. Along with about ten of these content and methods tests, four small-scale censuses were conducted in Travis County (Austin), Texas, Camden, New Jersey, Oakland, California, and Puerto Rico to test various aspects of census-taking procedures. Finally, three "dress rehearsal" censuses, conducted in two rural Colorado counties, in Richmond, Virginia, and in the Lower Manhattan section of New York City, tested and evaluated virtually every detail of the census plans. Throughout the process, items of the questionnaire and census procedures were reviewed with an eye toward disposing of those that did not test well.

As a result of the tests, the wording of some questions was changed to make them more easily understandable, while several questions were dropped because it was found that they did not produce reliable data. An important question that changed as a result of testing is one on Spanish origin that had recently been added to the census 100 percent questionnaire.

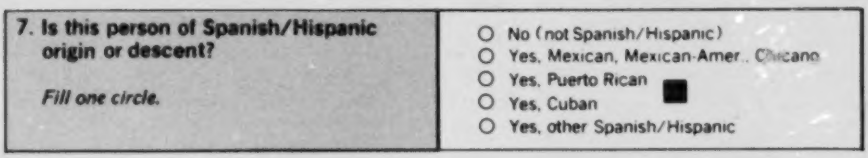
In the Richmond dress rehearsal, this question produced unacceptably high non-response rates. It was then revised for the later dress rehearsal in Lower Manhattan and, in addition, a national test was done by mail in which half of a sample of 6,500 households was given the Richmond version and half was given the Manhattan version. The result was that the question format used in Lower Manhattan substantially reduced the non-response rates, and that version was finally used. The Richmond test and

Figure 1. Spanish Origin Question

Richmond Test Version



Final 1980 Questionnaire Version



the final version of the question are shown in Figure 1. There is no doubt that the statistical information obtained from this question will be better because of the extensive testing and evaluation procedures.

Also tried out in the tests was a new set of housing questions designed to provide some indicators of housing quality or structural condition. Analysis of the results showed that questions such as "Does this house have open cracks or holes in the interior walls or ceiling?" did not add very much information about housing quality and they also aroused some unfavorable reaction. Consequently, the new housing condition questions were omitted from the final questionnaire.

Also proposed was a group of questions to measure shelter costs for homeowners, such as mortgage payments. These questions tested well and produced reliable results, with the exception of one that asked if there was a property improvement loan. So few households were able to answer that question that it was omitted from the final version which, however, includes seven questions on shelter costs, as seen on page 5 of the reprinted questionnaire *(Bulletin* page 21).

All testing was finished and evaluated by the end of 1978. The year 1979 is reserved largely for printing the millions of questionnaire forms and compiling the address lists used to mail the questionnaires distributed by that method.

Finding everybody

In preparation for the census, the Bureau creates a complete list of all places where people live or might live, an obviously important element in a census by mail. The heart of such an operation is the address list, prepared by a commercial vendor, then checked and corrected three times by the U.S. Postal Service—and further checked and corrected by the Census Bureau. In the 1980 Census,

procedures similar to those in 1970 will be used to create the address list. Several firms which offer lists for sale bid to supply the Bureau with initial address lists, and the completeness of each one is a major factor in determining which lists are purchased. For areas where commercial lists are not available, the Census Bureau creates its own with its own field staff.

The Census Bureau estimates that its preliminary address list or "inventory" will amount to about 86 million "dwelling units" (including apartments and rented rooms) but that checking will reveal that about 6 million of these units are unoccupied. Therefore, it is expected that the questionnaires mailed on March 28, 1980, will go out to about 80 million households.

As a final check on the address list, census enumerators, just prior to the mailing of questionnaires, will systematically recheck their assigned areas, identifying any occupied dwelling units that have been missed and adding them to the list.

Census enumerators follow up on questionnaires not mailed back within two or three weeks of Census Day or those arriving with incomplete information.

Enumerators are also responsible for seeing that completed questionnaires are returned for every address in their areas. Where questionnaires arrive with missing information, enumerators will phone or visit until all questions have been answered. To track down questionnaires not mailed back within two or three weeks of Census Day, they will make up to four calls at the home, leaving behind written requests for an appointment when nobody responds.

In about 10 percent of the United States, people do not have addresses that can be readily coded by computer to a specific block or census tract. These largely rural areas are enumerated by the "conventional" method. At every household, the Postal Service delivers an unaddressed questionnaire which instructs the respondent to hold the completed questionnaire until an enumerator picks it up several days later. In these areas, it is the enumerator who puts on the questionnaire, by hand, the proper census geographic coding, as described in the section on "Census Geography" (page 30).

The Census Bureau also has special procedures for finding people in institutions of all kinds and transients who could be missed in the questionnaire mailing to households—migratory workers, street people, and those in missions, motels, campgrounds, and so forth. On "T-night" (transient night), the evening before Census Day, Tuesday, April 1, 1980, there will be a special enumeration of people in hotels and motels that charge more than $4 a night, and in YMCAs, YWCAs, campgrounds, and the like. These people are enumerated on "individual census reports" which are sent back to the locality of their permanent addresses. "M-night" (mission night), scheduled for the Tuesday evening of the week following Census Day, seeks out people in mis-

Special procedures are used to enumerate people who may be missed in the questionnaire mailing to households.

sions, flophouses, and places charging transients $4 or less a night, and those in local jails and detention centers which hold persons for 30 days or less. It also covers bus and railroad stations and other places where people without addresses are likely to be sleeping overnight. In the final census statistics, such people—like college students living in dormitories—are "allocated" to the area where they happen to be at the time of Census Day.

Another special enumeration procedure, called a Casual Count, is conducted only in large cities. It begins the week before follow-up operations and is designed to enumerate people without fixed addresses who may have been overlooked. Such persons can be found on street corners, in pool halls, bars, etc. One can assume that enumerating these folks is not the most sought-after job at the Census Bureau.

It is clear that a census by mail does not rely entirely on the Postal Service to deliver the forms and bring them back. The checking and follow-up procedures described above are an essential part of the census objective—find everybody.

The Minority Statistics Program

Since the 1970 Census, several new programs have been developed to increase coverage among those people who live in crowded urban areas, are members of a minority group, or may not be fluent in English. The Census Bureau has established the Minority Statistics Program to help convince minority groups that census statistics are valuable to them as well as to Washington and to obtain their cooperation in improving the quality of census data through more complete enumeration of minorities.

There are three components of this new program. Under the *National Services Program*, Census Bureau staff meet regularly with national minority organizations such as The Urban League, The League of United Latin American Citizens, and the Pacific Asian Coalition. Numerous meetings are held each year, at which Bureau officials give presentations on the uses of census statistics and hold discussions on how to improve census coverage.

A second component is the *Community Services Program*, under which the Census Bureau is involved with minority groups at the local level. This program is carried out by 200 community service specialists hired by the Bureau to enlist local minority groups' participation in the census. The goal of this grass roots program is to reach those people who are hardest to enumerate and who would most likely be missed entirely without this special effort.

Along with the above programs, the Census Bureau has set up three minority advisory committees to get advice

on how to improve coverage among all minority groups. There are now Census Advisory committees for the Black Population, the Asian and Pacific Islander Population, and the Spanish Origin Population. There have also been a series of meetings with American Indian groups.

Critics say such efforts amount to little more than an attempt to placate minority groups that are critical of the Census Bureau's performance and that the effect of these new programs will be minimal because they do not go far enough. Still, they represent important and expensive additions to the government's efforts to locate and count all Americans, regardless of economic status or race. There is little doubt that the Census Bureau is sincere in its attempt to reduce the difference between white and minority response rates, a source not only of inaccurate data but also of national embarrassment.

Local review

An important new program for 1980—the local review program—should improve the count for minorities and whites alike. Under this program, the chief elected officials in each town, city, and county will be provided with preliminary dwelling-unit counts just prior to the census and will also be given population and housing counts as soon as possible after the census for each block or enumeration district in their municipalities. Thus, each municipality gets two chances to review the census counts before the census is over. The field offices of the Census Bureau will be kept open longer than in past censuses to review areas where the municipality provides evidence of an enumeration problem. Considering that every hour the huge field staff is kept on the job costs the government more than $200,000, even a few additional days will make this a very expensive program. The money will be well spent, however, if it increases community confidence in the census results and corrects problems that would not otherwise be found.

Processing the Census Results

After the census enumerators have reviewed the last questionnaire and checked out the last problem, the completed forms for the 1980 Census will be sent to one of three processing centers. In 1970, Jeffersonville, Indiana, was the sole site for processing questionnaires. Two temporary centers have been added to that permanent facility for 1980, one in Laguna Niguel, California, and one in New Orleans, Louisiana. At these centers, all questionnaires are microfilmed.

One copy of the microfilm is sent to the Census Bureau facility in Pittsburgh, Kansas. Any person may request from that office a certification that they personally were counted in any particular census. Thus a person about to become 65 years old but without any birth certificate may obtain proof of his or her age for social security purposes by showing that they were counted in the 1920 Census when they were five years old—another good reason to be counted in the census.

A second copy of the microfilm questionnaire is processed through a device called "FOSDIC," which optically senses the locations of the pencil marks the respondent made when filling out the form, and transfers the marks to computer tapes which are used to tabulate the data for each piece of census geography. Names and addresses are not read by the FOSDIC system and hence do not appear on these tapes. The result is several hundred reels of computer tape which contain all of the basic individual population and housing

The Census Bureau processing center at Jeffersonville, Indiana, is one of three to which completed questionnaires for the 1980 Census will be shipped for microfilming after checking at the 409 temporary census district offices.

data collected in the census.

Even though these tapes contain no names, they are highly confidential, kept under guard, and are not released to any other federal agency or any public or private organization. Instead, they are further processed into aggregate data tapes and printed reports which can be, and are, made publicly available since the identity of any specific individual is then impossible to determine. In areas small enough to allow for the possibility that a single person's data might be inadvertently revealed by any tabulation, the data are suppressed. For example, in a census block with only three or four persons, the computer would suppress all data tabulations where the aggregate statistics might reveal one of the person's individual characteristics.

By Thursday, January 1, 1981, the Secretary of Commerce must deliver to the President official population counts for each state, thereby setting the number of members in the House of Representatives that will come from each state. Thus, the major portion of the census-taking process—delivering some 80 million questionnaires, collecting them, finding people not included in a mailed questionnaire, going through local review, processing the data, and creating the basic census tapes—will take only nine months. Most of the printed reports and publicly available computer tapes will be available within 12 to 18 months after the President has received the reapportionment figures.

Uses of the Census

Although reapportionment of representation in legislative bodies has never been the only purpose of the census, it has always been the first and most important purpose. Indeed, this Constitutional requirement is a fundamental part of American democracy because it is the basis for equal representation. Not only are the figures used at the national level to apportion Congressional seats among the states, but states use them to set district boundaries for individual Congressional representatives and state legislatures. County and city officials also use the data to set election district boundaries for local representatives.

The use of census statistics in government programs has grown enormously. Today, in addition to the federal reve-

DUNAGIN'S PEOPLE

By Ralph Dunagin © Field Enterprises, Inc. 1979. Courtesy of Field Newspaper Syndicate.

"According to the Census Bureau, our state will gain two congressmen. . . . That's the price we pay for overpopulation."

As required by the Constitution, the decennial census provides the basis for fair reapportionment among the states of seats in the House of Representatives. It is also used to set district boundaries for state and local legislative bodies.

nue-sharing program, at least 100 other federal programs require the use of population estimates, based on the decennial census. They run the gamut from Agricultural Experiment Stations to Youth Recreational Services and even include a program for preventing hypertension. The use of population statistics derived from the census is also embedded in hundreds of state and federal laws which, while no money is attached, permit the locality to carry on certain functions, such as establish highway speed limits.

Probably the most extensive use of census statistics by all government agencies is for long-range planning. Public facilities such as highways, schools, water and sewer plants, and fire and police stations are not only expensive but are expected to be useful for at least 25 to 30 years. The need for these facilities now and in the future is usually determined by reference to past population trends and future projections from the most recent census.

But the fastest growing use of census statistics has been in the private sector.

There is hardly an American corporation that does not use census statistics in its product marketing, facilities planning, or personnel recruitment. Companies use the population characteristics to create new products for particular target groups. In the 1960s, the Ford Motor Company created the Mustang primarily for what was then a large and growing group of 18 to 24 year-olds, as revealed by the census.

The same type of information is useful when targeting advertising and promotion efforts. Pinpointing the location of the population group most likely to buy a product can avoid wasting advertising dollars. For example, advertising of products like tractor lawn mowers that appeal only to homeowners can be focused on cities and towns which have primarily owner-occupied dwelling units —information readily obtained from printed census reports. The same data can also be used to draw sales territories and set realistic sales goals.

In facilities planning, the determination that there are sufficient customers within the trading area of the store is usually done with the small area population and housing data available on census computer tapes. Prospective sites for an industrial plant can readily be evaluated using data on labor force characteristics from the census.

A new use of census summary data is for affirmative action. By reference to area labor force statistics by race and sex, it is possible to determine if there has been past discrimination at any facility. Court cases have been won on the basis of what census statistics showed.

Since there is no copyright on census data, they are repeated over and over in different publications by different authors until the original source is lost or forgotten. For example, the *Wall Street Journal* is often erroneously given credit for producing the unemployment statistics that appear periodically on its front page. They come from the Census Bureau's Current Population Survey, conducted monthly among a sample of some 50,000 households across the nation. Many people know how important demographic statistics are to every segment of our economy, but they may not know that the statistics come from the Census Bureau. The Bureau likes to tell the story of the person who wrote in 1970, "Why do we have to spend so much money to take the census? You could get all the figures from the World Almanac for free."

The 1980 Census Questionnaire

The 1980 questionnaire is similar to the one used in 1970 in that only a few basic questions are asked of every household and person. More information is asked of a sample of the population. The process is simpler for 1980, because only two forms of the questionnaire will be used—a short form for about 78 percent of the households and the long form for the remaining some 22 percent. In 1970 there were two versions of the long form, each given to a different sample of households.

For most areas of the country in 1980, a sample of one in every six households will receive the long form. In communities with populations below 2,500, the sampling will be on a one-in-two basis, in order to obtain more reliable statistics for revenue-sharing and other purposes.

The short questionnaire contains seven questions about population characteristics and 12 questions about housing. The long form contains these same questions plus an additional 20 housing and 26 population questions. The Census Bureau estimates that it takes about 15 minutes to complete the short questionnaire and 45 minutes for the long form.

During the planning for 1980, it was suggested that a question on income be added to the short questionnaire. Questions on income appeared only on the

sample forms in 1970. In its early census tests, the Bureau found that such a question could be answered without difficulty. But several members of Congress, the press, and advisory groups suggested that such a sensitive question asked of every American would create undue burden and lower mail response rates for the short form. Because of this and other technical problems, the Bureau will be asking for income data only on a sample basis in 1980.

However, a question on Spanish origin or descent was moved from the sample questionnaire to a 100 percent basis in 1980, in part because Hispanic-Americans are becoming a larger proportion of the population.

Questions asked of everybody

Aside from the addition of the question on Spanish origin and a change in the wording of the household relationship item, the short form population questions remain basically the same as in 1970 with the exception of the question on race. This question has been modified and expanded for 1980. The specific reference to "color or race" has been replaced with the phrase, "Is this person—." The 1970 category "Negro or Black" has been reworded "Black or Negro." Separate categories for Vietnamese, Asian Indian, Guamanian, and Samoan have been added. The special questionnaire used for Alaska in 1970—in which the categories Hawaiian and Korean were replaced by Aleut and Eskimo—has been eliminated; now all four of those categories are on all questionnaires. As a result, the 1980 questionnaire will have 15 categories for this item instead of the nine used in 1970.

The 12 housing questions asked of all households in 1980 are significantly different from the 12 asked in 1970. The Census Bureau previously had asked for a telephone number where the respondent could be reached, and about kitchen facilities and a basement. For 1980, the kitchen facilities question and a telephone availability question have been moved to the sample questionnaire. The basement question did not yield sufficiently useful information in 1970 and was dropped. The request for a telephone number was used primarily for enumerator follow-up and has been moved to the back cover of the questionnaire for 1980. Previously there were three questions on the presence or absence of plumbing facilities; now there is only one. Also, newly worded questions attempt to elicit better information on the character and type of dwelling units. For example, there is now a separate question on condominiums, reflecting the large increase in that type of housing since 1970.

The questions about value, rent, and number of rooms in each dwelling are the same except that the impact of inflation shows up in the housing value and rents. In 1970, the highest house value asked was "$50,000 or more." In 1980,

the highest value is "$200,000 or more."

"Head of household" eliminated

The census questionnaire mirrors changes in society. Just as the addition of a question on Spanish origin reflects the growing influence of Hispanics, the disappearance of the term "head of household" from the questionnaire reflects the growing influence of women in society. In 1980, each American household will be asked simply to indicate the relationship of other family members to the person who is listed in column one of the questionnaire. The respondent will choose which adult belongs in column one. In the past, the husband in married-couple families had been assumed to be the head. The new question on household relationship is worded as follows: "Start in this column with the household member (or one of the members) in whose name the home is owned or rented. If there is no such person, start in this column with any adult member."

This change is a significant one, perhaps the most significant change in the questionnaire from 1970. It was the product of considerable testing by the Census Bureau. A national survey of 940 households taken by the Bureau in September, 1975, interviewed husbands and wives separately about their preferences on the issue. Almost one-half of both husbands and wives said the husband was the head of the household; but fully one-third said the husband and wife were joint heads. Most of the remainder said the wife was the head.

Allowing the husband and wife to report as joint heads in questionnaire responses would create serious problems in identifying the household and family structure since the classifications of each household member must be made with regard to one reference person. There also would be problems in using household data because information such as age, education, employment status, occupation, and income of the household reference person or householder would be rendered meaningless if some husband-wife households contained joint heads while others reported individual heads. Also, tables showing family relationships would become impossible to create.

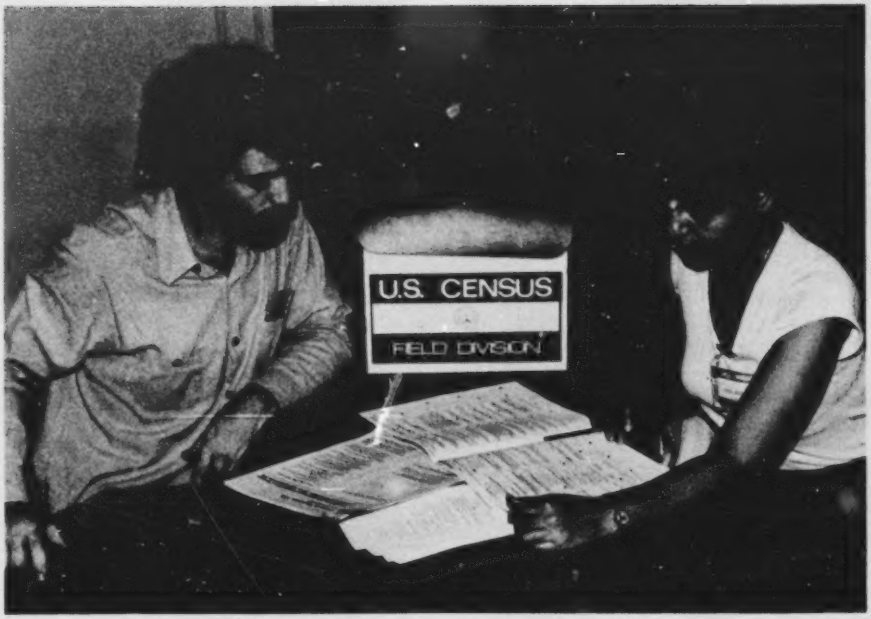
The Bureau's solution—to eliminate the term "head" entirely but to retain the concept of one family member as a point of reference, with individual families selecting that person—was tested successfully. Respondents had no more difficulty filling out the new form than with the old. Bureau officials do not believe that comparability with earlier data will be a problem; tabulations have been designed to facilitate comparison.

Questionnaire reproduced

Figure 2 (pages 18-23) presents a reproduction of the 1980 Census questionnaire with annotations pointing out changes from 1970 and other noteworthy details. The questionnaire was obtained from the Bureau of the Census; editing and annotations were done by the staff of *American Demographics* magazine and are reprinted here with permission.

This version of the questionnaire is given to a sample of the population. The first seven population questions are also asked of every American, and housing questions H1. through H12. are asked of every household. The rest of the questions are asked on a sample basis only.

The first question appears on the cover of both the short form (which has only the 100 percent questions) and the long form (the sample questionnaire). The question is: "What is the name of each person who was living here on Tuesday, April 1, 1980, or who was staying or visiting here and had no other home?" (Visitors with home addresses elsewhere are enumerated at that address.) Information from Question 1 is



used by the Census Bureau for follow-up if other questions are not answered. Names provided from this question are for Bureau follow-up purposes only and are not made public. As a standard procedure, a call will be made to every address that lists seven or more persons to be sure everyone has been counted. The questionnaire has spaces for only seven persons in each household.

The questionnaire begins with a pledge of confidentiality, Spanish-language instructions for those who wish to order a Spanish questionnaire, and the following message from the Census Bureau director:

"We must, from time-to-time, take stock of ourselves as a people if our Nation is to meet successfully the many national and local challenges we face. This is the purpose of the 1980 Census.

The essential need for a population census was recognized almost 200 years ago when our Constitution was written. As provided by article I, the first census was conducted in 1790 and one has been taken every 10 years since then.

The law under which the census is taken protects the confidentiality of your answers. For the next 72 years—or until April 1, 2052—only sworn census workers have access to the individual records, and no one else may see them.

Your answers, when combined with the answers from other people, will provide the statistical figures needed by public and private groups, schools, business and industry, and federal, state and local governments across the country. These figures will help all sectors of American society understand how our population and housing are changing. In this way, we can deal more effectively with today's problems and work toward a better future for all of us.

The census is a vitally important national activity. Please do your part by filling out this census form accurately and completely. If you mail it back promptly in the enclosed postage-paid envelope, it will save the expense and inconvenience of a census taker having to visit you.

Thank you for your cooperation."

Figure 2. The 1980 Questionnaire/Annotated

2. provides information on type of household (husband/wife, other type of family, or single person households) and the number of persons in the household. Because of changes in society since 1970, the concept of household "head" has been replaced with that of a reference person in whose name the dwelling unit is owned or rented. This person is identified in column one. This key change means data will not be exactly comparable to "male-headed" or "female-headed" household data from the 1970 Census, but it will be easy to identify families and other types of households. In many tabulations characteristics will be shown for both husband and wife where they were shown previously only for the head of family households.

The questionnaire has space for up to seven household members to provide answers. We show only column 1. The other columns are identical except for question 2, which asks relationship. In question 2, columns 2 through 7 have the following language instead of the "Start in this column" language: "If relative of person in column 1: Husband/wife; Son/daughter; Brother/sister; Father/mother; Other relative (specify). If not related to person in column 1: Roomer, boarder; Partner, roommate; Paid employee; Other nonrelative (specify)."

Two of the categories are new: "Partner, roommate" and "Paid employee." The first was added to obtain statistics on the growing number of people who live together without being married.

3. same as in 1970.

4. expands the possible answers about race from nine in 1970 to 15. As a result we can expect a few Samoans to turn up in places like Kansas City, just because that alternative is listed. The expansion is the result of growing ethnic awareness, but note that the word "race" does not appear.

5. same as in 1970.

6. same as in 1970.

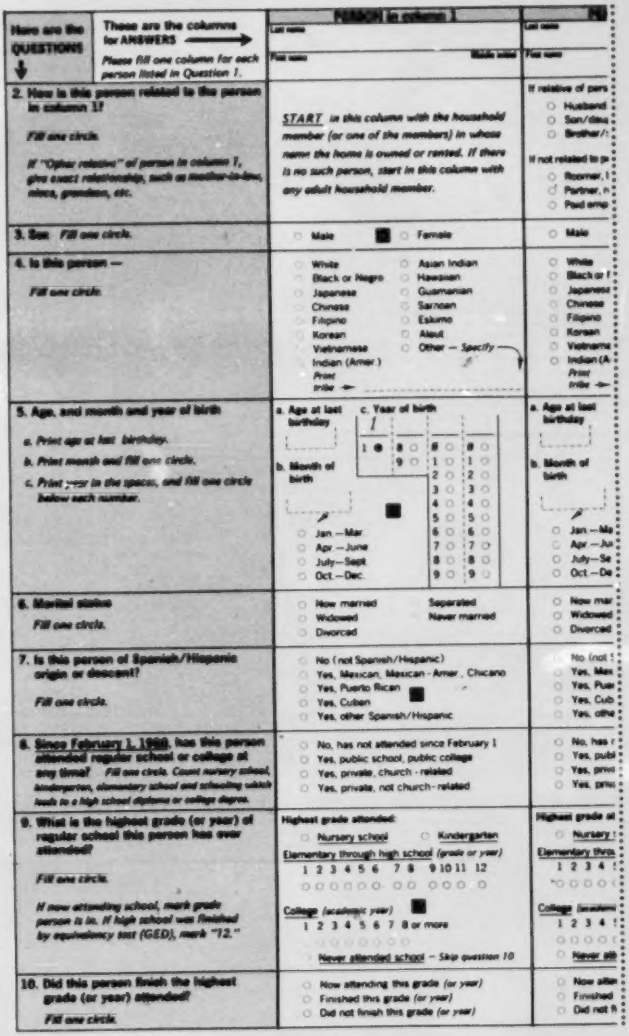
7. for the first time asks all Americans a single question about Spanish origin. These data will not be comparable with previous censuses. In 1970, this question was asked of a maximum of 15 percent of the population, and the data were tabulated differently for different regions of the country. This question ends the population questions asked of all Americans. The next three questions appear on the long form questionnaire only.

8. similar to 1970, but what was previously called "parochial" schools is now called "church related."

9. similar to 1970, but the highest college level asked for then was six or more years.

10. same as in 1970.

Note: Because of our format we have reduced the size of the questionnaire by about 40 percent and omitted certain instructions to respondents and Census Bureau use boxes. The census questionnaire also will have blue shading, not gray.



Here are the QUESTIONS

These are the columns for ANSWERS

Please fill one column for each person listed in Question 1.

PERSON 1 in column 1

2. How is this person related to the person in column 1?
Fill one circle.
If "Other relative" of person in column 1, give exact relationship, such as mother-in-law, niece, grandson, etc.
START *in this column with the household member (or one of the members) in whose name the home is owned or rented. If there is no such person, start in this column with any adult household member.*

3. Sex *Fill one circle.*
Male ■ Female

4. Is this person —
Fill one circle.
White; Black or Negro; Japanese; Chinese; Filipino; Korean; Vietnamese; Indian (Amer.) *Print tribe*; Asian Indian; Hawaiian; Guamanian; Samoan; Eskimo; Aleut; Other — *Specify*

5. Age, and month and year of birth
a. Print age at last birthday.
b. Print month and fill one circle.
c. Print year in the spaces, and fill one circle below each number.
a. Age at last birthday
b. Month of birth: Jan.–Mar.; Apr.–June; July–Sept.; Oct.–Dec. ■
c. Year of birth: 1 ● 8 ○ 9 ○ | 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ | 0 ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○

6. Marital status
Fill one circle.
Now married; Widowed; Divorced; Separated; Never married

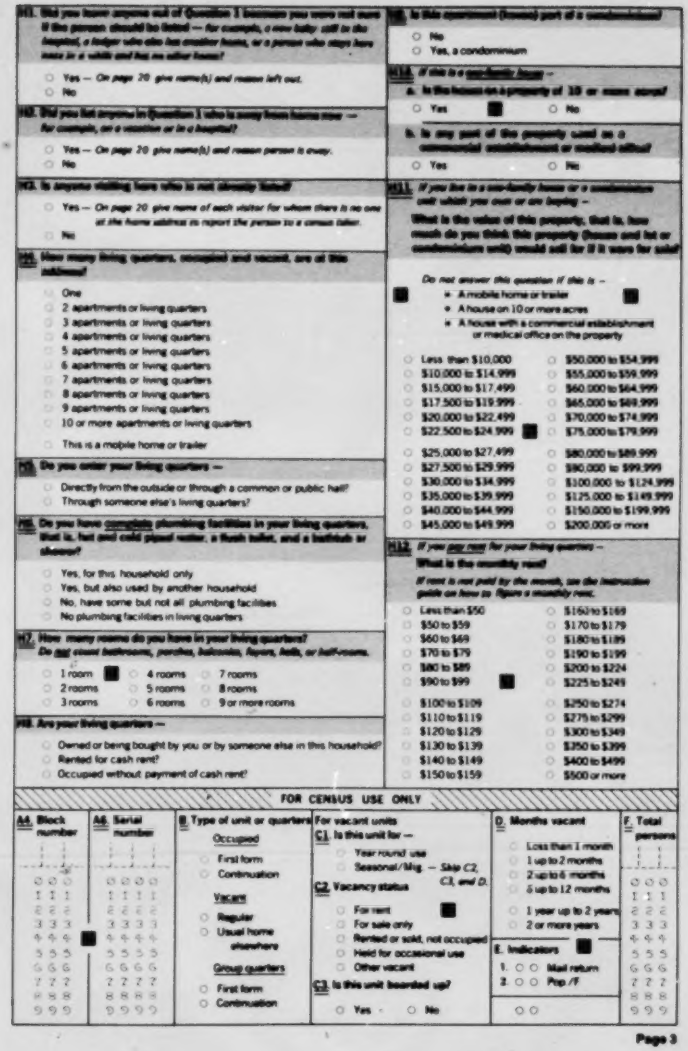
7. Is this person of Spanish/Hispanic origin or descent?
Fill one circle.
No (not Spanish/Hispanic); Yes, Mexican, Mexican-Amer., Chicano; Yes, Puerto Rican ■; Yes, Cuban; Yes, other Spanish/Hispanic

8. Since February 1, 1980, has this person attended regular school or college at any time? *Fill one circle. Count nursery school, kindergarten, elementary school and schooling which leads to a high school diploma or college degree.*
No, has not attended since February 1; Yes, public school, public college; Yes, private, church-related; Yes, private, not church-related

9. What is the highest grade (or year) of regular school this person has ever attended?
Fill one circle.
If now attending school, mark grade person is in. If high school was finished by equivalency test (GED), mark "12."
Highest grade attended: Nursery school; Kindergarten
Elementary through high school *(grade or year)*: 1 2 3 4 5 6 7 8 9 10 11 12
College *(academic year)* ■: 1 2 3 4 5 6 7 8 or more
Never attended school — *Skip question 10*

10. Did this person finish the highest grade (or year) attended?
Fill one circle.
Now attending this grade *(or year)*; Finished this grade *(or year)*; Did not finish this grade *(or year)*

Page 2



H1. Did you leave anyone out of Question 1 because you were not sure if the person should be listed — *for example, a new baby still in the hospital, a lodger who also has another home, or a person who stays here most of a week and has no other home?*

- ○ Yes — *On page 20 give name(s) and reason left out.*
- ○ No

H2. Did you list anyone in Question 1 who is away from home now — *for example, on a vacation or in a hospital?*

- ○ Yes — *On page 20 give name(s) and reason person is away.*
- ○ No

H3. Is anyone visiting here who is not already listed?

- ○ Yes — *On page 20 give name of each visitor for whom there is no one at the home address to report the person to a census taker.*
- ○ No

H4. How many living quarters, occupied and vacant, are at this address?

- ○ One
- ○ 2 apartments or living quarters
- ○ 3 apartments or living quarters
- ○ 4 apartments or living quarters
- ○ 5 apartments or living quarters
- ○ 6 apartments or living quarters
- ○ 7 apartments or living quarters
- ○ 8 apartments or living quarters
- ○ 9 apartments or living quarters
- ○ 10 or more apartments or living quarters
- ○ This is a mobile home or trailer

H5. Do you enter your living quarters —

- ○ Directly from the outside or through a common or public hall?
- ○ Through someone else's living quarters?

H6. Do you have *complete* plumbing facilities in your living quarters, that is, hot and cold piped water, a flush toilet, and a bathtub or shower?

- ○ Yes, for this household only
- ○ Yes, but also used by another household
- ○ No, have some but not all plumbing facilities
- ○ No plumbing facilities in living quarters

H7. How many rooms do you have in your living quarters? *Do not count bathrooms, porches, balconies, foyers, halls, or half-rooms.*

- ○ 1 room
- ○ 2 rooms
- ○ 3 rooms
- ○ 4 rooms
- ○ 5 rooms
- ○ 6 rooms
- ○ 7 rooms
- ○ 8 rooms
- ○ 9 or more rooms

H8. Are your living quarters —

- ○ Owned or being bought by you or by someone else in this household?
- ○ Rented for cash rent?
- ○ Occupied without payment of cash rent?

H9. Is this apartment (house) part of a condominium?

- ○ No
- ○ Yes, a condominium

H10. *If this is a one-family house —*

a. Is the house on a property of 10 or more acres?

- ○ Yes
- ○ No

b. Is any part of the property used as a commercial establishment or medical office?

- ○ Yes
- ○ No

H11. *If you live in a one-family house or a condominium unit which you own or are buying —*

What is the value of this property, that is, how much do you think this property (house and lot or condominium unit) would sell for if it were for sale?

Do not answer this question if this is —

- A mobile home or trailer
- A house on 10 or more acres
- A house with a commercial establishment or medical office on the property

- ○ Less than $10,000
- ○ $10,000 to $14,999
- ○ $15,000 to $17,499
- ○ $17,500 to $19,999
- ○ $20,000 to $22,499
- ○ $22,500 to $24,999
- ○ $25,000 to $27,499
- ○ $27,500 to $29,999
- ○ $30,000 to $34,999
- ○ $35,000 to $39,999
- ○ $40,000 to $44,999
- ○ $45,000 to $49,999
- ○ $50,000 to $54,999
- ○ $55,000 to $59,999
- ○ $60,000 to $64,999
- ○ $65,000 to $69,999
- ○ $70,000 to $74,999
- ○ $75,000 to $79,999
- ○ $80,000 to $89,999
- ○ $90,000 to $99,999
- ○ $100,000 to $124,999
- ○ $125,000 to $149,999
- ○ $150,000 to $199,999
- ○ $200,000 or more

H12. *If you pay rent for your living quarters —*

What is the monthly rent?

If rent is not paid by the month, see the instruction guide on how to figure a monthly rent.

- ○ Less than $50
- ○ $50 to $59
- ○ $60 to $69
- ○ $70 to $79
- ○ $80 to $89
- ○ $90 to $99
- ○ $100 to $109
- ○ $110 to $119
- ○ $120 to $129
- ○ $130 to $139
- ○ $140 to $149
- ○ $150 to $159
- ○ $160 to $169
- ○ $170 to $179
- ○ $180 to $189
- ○ $190 to $199
- ○ $200 to $224
- ○ $225 to $249
- ○ $250 to $274
- ○ $275 to $299
- ○ $300 to $349
- ○ $350 to $399
- ○ $400 to $499
- ○ $500 or more

FOR CENSUS USE ONLY

A4. Block number

A6. Serial number

B. Type of unit or quarters

Occupied
- ○ First form
- ○ Continuation

Vacant
- ○ Regular
- ○ Usual home elsewhere

Group quarters
- ○ First form
- ○ Continuation

For vacant units

C1. Is this unit for —
- ○ Year round use
- ○ Seasonal/Mig. — *Skip C2, C3, and D.*

C2. Vacancy status
- ○ For rent
- ○ For sale only
- ○ Rented or sold, not occupied
- ○ Held for occasional use
- ○ Other vacant

C3. Is this unit boarded up?
- ○ Yes
- ○ No

D. Months vacant
- ○ Less than 1 month
- ○ 1 up to 2 months
- ○ 2 up to 6 months
- ○ 6 up to 12 months
- ○ 1 year up to 2 years
- ○ 2 or more years

E. Indicators
1. ○ ○ Mail return
2. ○ ○ Pop./F

○ ○

F. Total persons

Page 3

H1-H3. the housing part of both the 100 percent and sample questionnaires starts with these three questions to make sure that everyone in the household was counted.

H4. same as in 1970. This question is asked so that census personnel can be sure that all units at an address are enumerated. Question H13 provides superior data on the number of dwelling units in the structure. Like the first three housing questions, H4 is intended to check coverage.

H5. has the objective of making certain the respondent occupies a bona fide dwelling unit, not just a few rooms in someone else's house.

H6. one of the few questions left from a series of questions in the 1970 Census which attempted to measure housing quality.

H7. same as in 1970.

H8. same as in 1970.

H9. for the first time poses a separate question on condominiums. The term "cooperative" also appeared on the test questionnaires but was misunderstood by many respondents.

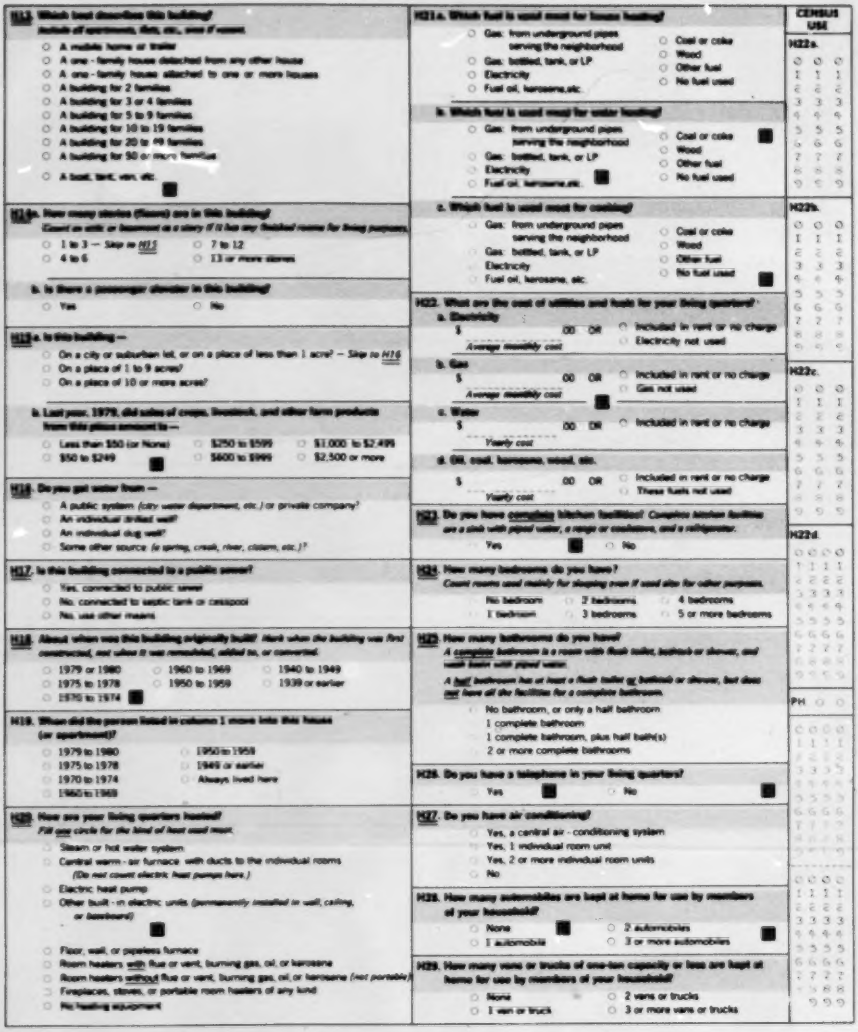
H10. separates farmhouses, estates, and partly commercial structures from single family dwelling units. Value is not tabulated for these types of units.

H11. asks value. There are 24 categories instead of the 11 in 1970, when the highest value was only $50,000 or more.

H12. also shows the impact of inflation. The highest interval in 1970 was $300 or more. It is now $500 or more, and 24 categories appear instead of the former 14.

H12 ends the housing questions asked of all Americans. The Census Bureau estimates it takes 15 minutes to answer the 19 population and housing questions on the short questionnaire, while the remaining questions add another 30 minutes.

Figure 2. The 1980 Census Questionnaire/Annotated (cont.)



H13. Which best describes this building?
Include all apartments, flats, etc., even if vacant.

- A mobile home or trailer
- A one - family house detached from any other house
- A one - family house attached to one or more houses
- A building for 2 families
- A building for 3 or 4 families
- A building for 5 to 9 families
- A building for 10 to 19 families
- A building for 20 to 49 families
- A building for 50 or more families
- A boat, tent, van, etc.

H14a. How many stories (floors) are in this building?
Count an attic or basement as a story if it has any finished rooms for living purposes.

- 1 to 3 — Skip to H15
- 4 to 6
- 7 to 12
- 13 or more stories

b. Is there a passenger elevator in this building?

- Yes
- No

H15a. Is this building —

- On a city or suburban lot, or on a place of less than 1 acre? — Skip to H16
- On a place of 1 to 9 acres?
- On a place of 10 or more acres?

b. Last year, 1979, did sales of crops, livestock, and other farm products from this place amount to —

- Less than $50 (or None)
- $50 to $249
- $250 to $599
- $600 to $999
- $1,000 to $2,499
- $2,500 or more

H16. Do you get water from —

- A public system *(city water department, etc.)* or private company?
- An individual drilled well?
- An individual dug well?
- Some other source *(a spring, creek, river, cistern, etc.)*?

H17. Is this building connected to a public sewer?

- Yes, connected to public sewer
- No, connected to septic tank or cesspool
- No, use other means

H18. About when was this building originally built? *Mark when the building was first constructed, not when it was remodeled, added to, or converted.*

- 1979 or 1980
- 1975 to 1978
- 1970 to 1974
- 1960 to 1969
- 1950 to 1959
- 1940 to 1949
- 1939 or earlier

H19. When did the person listed in column 1 move into this house (or apartment)?

- 1979 to 1980
- 1975 to 1978
- 1970 to 1974
- 1960 to 1969
- 1950 to 1959
- 1949 or earlier
- Always lived here

H20. How are your living quarters heated?
Fill one circle for the kind of heat used most.

- Steam or hot water system
- Central warm - air furnace with ducts to the individual rooms
  (Do not count electric heat pumps here.)
- Electric heat pump
- Other built - in electric units *(permanently installed in wall, ceiling, or baseboard)*
- Floor, wall, or pipeless furnace
- Room heaters with flue or vent, burning gas, oil, or kerosene
- Room heaters without flue or vent, burning gas, oil, or kerosene *(not portable)*
- Fireplaces, stoves, or portable room heaters of any kind
- No heating equipment

H21a. Which fuel is used most for house heating?

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Other fuel
- No fuel used

b. Which fuel is used most for water heating?

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Other fuel
- No fuel used

c. Which fuel is used most for cooking?

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Other fuel
- No fuel used

H22. What are the cost of utilities and fuels for your living quarters?

a. Electricity
$ .00 OR
Average monthly cost
- Included in rent or no charge
- Electricity not used

b. Gas
$ .00 OR
Average monthly cost
- Included in rent or no charge
- Gas not used

c. Water
$ .00 OR
Yearly cost
- Included in rent or no charge

d. Oil, coal, kerosene, wood, etc.
$ .00 OR
Yearly cost
- Included in rent or no charge
- These fuels not used

H23. Do you have complete kitchen facilities? *Complete kitchen facilities are a sink with piped water, a range or cookstove, and a refrigerator.*

- Yes
- No

H24. How many bedrooms do you have?
Count rooms used mainly for sleeping even if used also for other purposes.

- No bedroom
- 1 bedroom
- 2 bedrooms
- 3 bedrooms
- 4 bedrooms
- 5 or more bedrooms

H25. How many bathrooms do you have?
A complete bathroom is a room with flush toilet, bathtub or shower, and wash basin with piped water.
A half bathroom has at least a flush toilet or bathtub or shower, but does not have all the facilities for a complete bathroom.

- No bathroom, or only a half bathroom
- 1 complete bathroom
- 1 complete bathroom, plus half bath(s)
- 2 or more complete bathrooms

H26. Do you have a telephone in your living quarters?

- Yes
- No

H27. Do you have air conditioning?

- Yes, a central air - conditioning system
- Yes, 1 individual room unit
- Yes, 2 or more individual room units
- No

H28. How many automobiles are kept at home for use by members of your household?

- None
- 1 automobile
- 2 automobiles
- 3 or more automobiles

H29. How many vans or trucks of one-ton capacity or less are kept at home for use by members of your household?

- None
- 1 van or truck
- 2 vans or trucks
- 3 or more vans or trucks

CENSUS USE
H22a.
H22b.
H22c.
H22d.
PH

Page 4

Please answer H30–H32 if you live in a one-family house which you own or are buying, unless this is –

- A mobile home or trailer . . . . . .
- A house on 10 or more acres . . . . . .
- A condominium unit . . . . . .
- A house with a commercial establishment or medical office on the property . . . . .

If any of these, or if you rent your unit or this is a multi-family structure, skip H30 to H32 and turn to page 6.

H30. What were the real estate taxes on this property last year?

$ _____ .00 OR ○ None

H31. What is the annual premium for fire and hazard insurance on this property?

$ _____ .00 OR ○ None

H32a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on this property?

○ Yes, mortgage, deed of trust, or similar debt
○ Yes, contract to purchase
○ No — *Skip to page 6*

b. Do you have a second or junior mortgage on this property?

○ Yes ○ No

c. How much is your total regular monthly payment on the loans? *Also include payments on a contract to purchase and on loans having second or junior mortgages on this property.*

$ _____ .00 OR ○ No regular payment required — *Skip to page 6*

d. Does your regular monthly payment (amount entered in H32c) include payments for real estate taxes on this property?

○ Yes, taxes included in payment
○ No, taxes paid separately or taxes not required

e. Does your regular monthly payment (amount entered in H32c) include payments for fire and hazard insurance on this property?

○ Yes, insurance included in payment
○ No, insurance paid separately or no insurance

Please turn to page 6.

FOR CENSUS USE ONLY

H13. boats, vans, and tents have been added to the possible answers. Otherwise, it is the same as a question asked in 1970.

H14. same as in 1970.

H15. same as in 1970.

H16. a slight variation from the 1970 question in that the respondent is asked to differentiate a drilled well from a dug well.

H17. same as in 1970.

H18. same as in 1970.

H19. asked in 1970, but of each person in the household, and appeared in the population section.

H20. same as in 1970 except that the choice "electric heat pump" has been added, and an open-ended "other" choice has been eliminated.

H21. same as in 1970.

H22. asked only of renters in 1970. Now all sampled households are expected to answer. Census tests show that respondents almost always overstate their utility costs.

H23. asked in 1970, but on the short form.

H24. same as in 1970.

H25. asked in 1970, except the highest category was "3 or more" bathrooms.

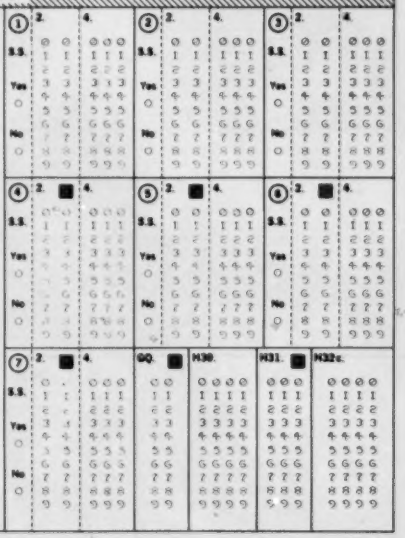
H26. on the 100 percent questionnaire in 1970 and asked differently: Is there a telephone on which people in your living quarters can be called?" If the answer was yes, the respondent was asked to write down the phone number. The simpler form for 1980 may produce better results.

H27. same as in 1970.

H28. same as in 1970.

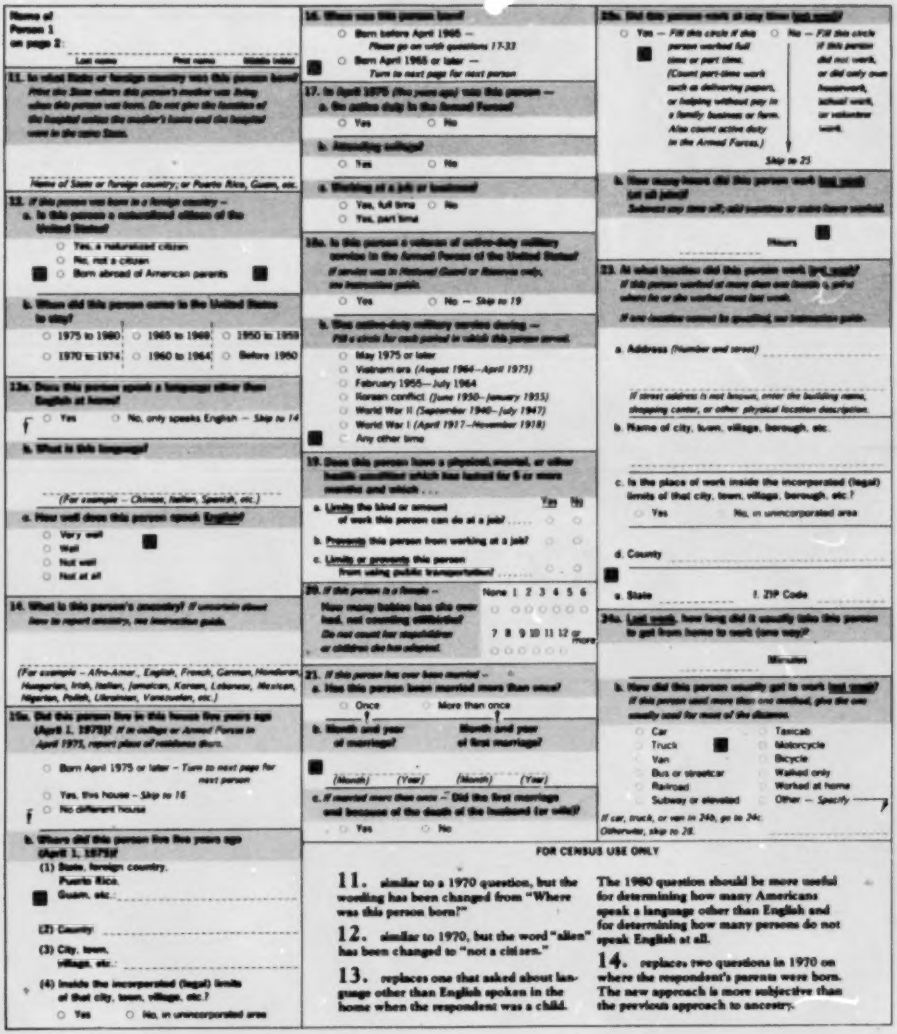
H29. a new question reflecting the substantial increase in the number of vans and trucks.

H30-H32. all new. Their purpose is to obtain a measure of total shelter costs for one-family owner-occupied units. The Census Bureau does not plan to tabulate these questions separately, but to combine them with H22 for a single tabulation of "total shelter costs."



Page 5

Figure 2. The 1980 Census Questionnaire/Annotated (cont.)



Name of Person 1 on page 2:
Last name — First name — Middle initial

11. In what State or foreign country was this person born?
Print the State where this person's mother was living when this person was born. Do not give the location of the hospital unless the mother's home and the hospital were in the same State.
Name of State or foreign country, or Puerto Rico, Guam, etc.

12. *If this person was born in a foreign country —*
a. Is this person a naturalized citizen of the United States?
○ Yes, a naturalized citizen
○ No, not a citizen
○ Born abroad of American parents

b. When did this person come to the United States to stay?
○ 1975 to 1980 ○ 1965 to 1969 ○ 1950 to 1959
○ 1970 to 1974 ○ 1960 to 1964 ○ Before 1950

13a. Does this person speak a language other than English at home?
○ Yes ○ No, only speaks English — *Skip to 14*

b. What is this language?
(For example — Chinese, Italian, Spanish, etc.)

c. How well does this person speak English?
○ Very well
○ Well
○ Not well
○ Not at all

14. What is this person's ancestry? *If uncertain about how to report ancestry, see instruction guide.*
(For example — Afro-Amer., English, French, German, Honduran, Hungarian, Irish, Italian, Jamaican, Korean, Lebanese, Mexican, Nigerian, Polish, Ukrainian, Venezuelan, etc.)

15a. Did this person live in this house five years ago (April 1, 1975)? *If in college or Armed Forces in April 1975, report place of residence there.*
○ Born April 1975 or later — *Turn to next page for next person*
○ Yes, this house — *Skip to 16*
○ No different house

b. Where did this person live five years ago (April 1, 1975)?
(1) State, foreign country, Puerto Rico, Guam, etc.
(2) County
(3) City, town, village, etc.
(4) Inside the incorporated (legal) limits of that city, town, village, etc.?
○ Yes ○ No, in unincorporated area

16. When was this person born?
○ Born before April 1965 — *Please go on with questions 17-33*
○ Born April 1965 or later — *Turn to next page for next person*

17. In April 1975 *(five years ago)* was this person —
a. On active duty in the Armed Forces?
○ Yes ○ No

b. Attending college?
○ Yes ○ No

c. Working at a job or business?
○ Yes, full time ○ No
○ Yes, part time

18a. Is this person a veteran of active-duty military service in the Armed Forces of the United States?
If service was in National Guard or Reserves only, see instruction guide.
○ Yes ○ No — *Skip to 19*

b. Was active-duty military service during —
Fill a circle for each period in which this person served.
○ May 1975 or later
○ Vietnam era *(August 1964—April 1975)*
○ February 1955—July 1964
○ Korean conflict *(June 1950—January 1955)*
○ World War II *(September 1940—July 1947)*
○ World War I *(April 1917—November 1918)*
○ Any other time

19. Does this person have a physical, mental, or other health condition which has lasted for 6 or more months and which ...

	Yes	No
a. Limits the kind or amount of work this person can do at a job?	○	○
b. Prevents this person from working at a job?	○	○
c. Limits or prevents this person from using public transportation?	○	○

20. *If this person is a female —*
How many babies has she ever had, not counting stillbirths? *Do not count her stepchildren or children she has adopted.*
None 1 2 3 4 5 6 ○ ○ ○ ○ ○ ○ ○
7 8 9 10 11 12 or More ○ ○ ○ ○ ○ ○

21. *If this person has ever been married —*
a. Has this person been married more than once?
○ Once ○ More than once

b. Month and year of marriage? (Month) (Year)
Month and year of first marriage? (Month) (Year)

c. *If married more than once* — Did the first marriage end because of the death of the husband (or wife)?
○ Yes ○ No

22a. Did this person work at any time last week?
○ Yes — *Fill this circle if this person worked full time or part time. (Count part-time work such as delivering papers, or helping without pay in a family business or farm. Also count active duty in the Armed Forces.)*
○ No — *Fill this circle if this person did not work, or did only own housework, school work, or volunteer work.*
Skip to 25

b. How many hours did this person work last week (at all jobs)?
Subtract any time off, add overtime or extra hours worked.
Hours

23. At what location did this person work last week?
If this person worked at more than one location, print where he or she worked most last week.
If any location cannot be specified, see instruction guide.
a. Address *(Number and street)*
If street address is not known, enter the building name, shopping center, or other physical location description.
b. Name of city, town, village, borough, etc.
c. Is the place of work inside the incorporated (legal) limits of that city, town, village, borough, etc.?
○ Yes ○ No, in unincorporated area
d. County
e. State f. ZIP Code

24a. Last week, how long did it usually take this person to get from home to work (one way)?
Minutes

b. How did this person usually get to work last week?
If this person used more than one method, give the one usually used for most of the distance.
○ Car ○ Taxicab
○ Truck ○ Motorcycle
○ Van ○ Bicycle
○ Bus or streetcar ○ Walked only
○ Railroad ○ Worked at home
○ Subway or elevated ○ Other — *Specify*
If car, truck, or van in 24b, go to 24c. Otherwise, skip to 25.

FOR CENSUS USE ONLY

11. similar to a 1970 question, but the wording has been changed from "Where was this person born?"

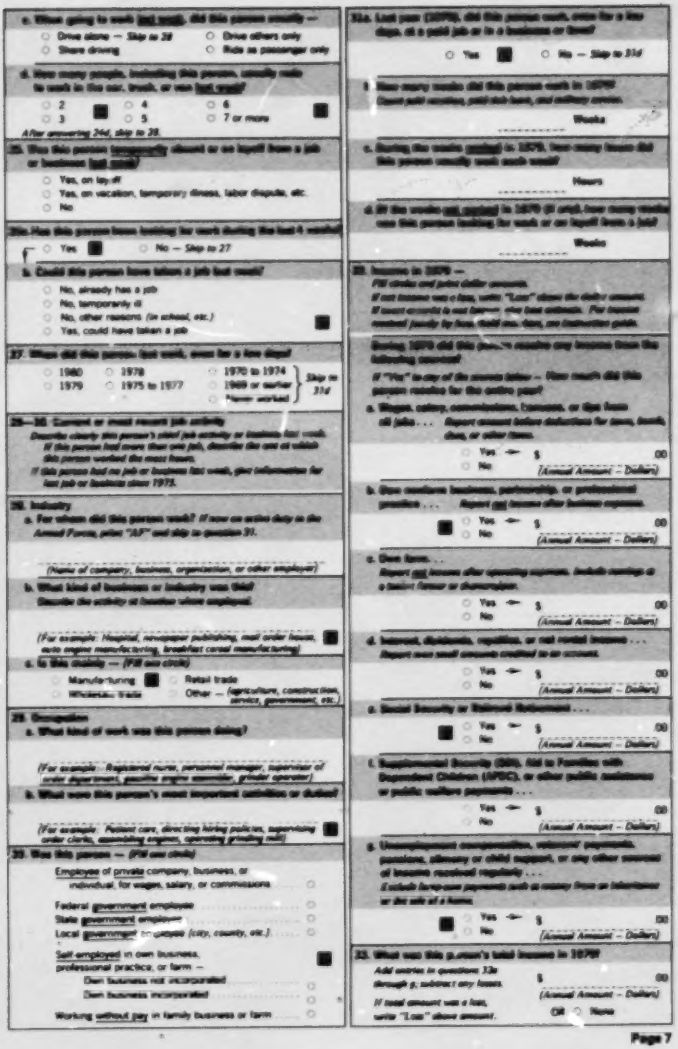
12. similar to 1970, but the word "alien" has been changed to "not a citizen."

13. replaces one that asked about language other than English spoken in the home when the respondent was a child.

The 1980 question should be more useful for determining how many Americans speak a language other than English and for determining how many persons do not speak English at all.

14. replaces two questions in 1970 on where the respondent's parents were born. The new approach is more subjective than the previous approach to ancestry.

Page 6



c. Was going to work last week, did this person usually —
- Drive alone — *Skip to 28*
- Drive others only
- Share driving
- Ride as passenger only

d. How many people, including this person, usually rode to work in the car, truck, or van last week?
- 2
- 3
- 4
- 5
- 6
- 7 or more

After answering 24d, skip to 28.

25. Was this person temporarily absent or on layoff from a job or business last week?
- Yes, on layoff
- Yes, on vacation, temporary illness, labor dispute, etc.
- No

26a. Has this person been looking for work during the last 4 weeks?
- Yes
- No — *Skip to 27*

b. Could this person have taken a job last week?
- No, already has a job
- No, temporarily ill
- No, other reasons (*in school, etc.*)
- Yes, could have taken a job

27. When did this person last work, even for a few days?
- 1980
- 1979
- 1978
- 1975 to 1977
- 1970 to 1974
- 1969 or earlier
- Never worked

Skip to 31d

28—30. Current or most recent job activity

Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours.

If this person had no job or business last week, give information for last job or business since 1975.

29. Industry

a. For whom did this person work? *If now on active duty in the Armed Forces, print "AF" and skip to question 31.*

(Name of company, business, organization, or other employer)

b. What kind of business or industry was this?
Describe the activity at location where employed.

(For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. Is this industry — *(Fill one circle)*
- Manufacturing
- Wholesale trade
- Retail trade
- Other — *(agriculture, construction, service, government, etc.)*

30. Occupation

a. What kind of work was this person doing?

(For example: Registered nurse, personal manager, supervisor of order department, gasoline engine assembler, grinder operator)

b. What were this person's most important activities or duties?

(For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

31. Was this person — *(Fill one circle)*
- Employee of private company, business, or individual, for wages, salary, or commissions
- Federal government employee
- State government employee
- Local government employee (*city, county, etc.*)
- Self-employed in own business, professional practice, or farm —
  - Own business not incorporated
  - Own business incorporated
- Working without pay in family business or farm

32a. Last year (1979), did this person work, even for a few days, at a paid job or in a business or farm?
- Yes
- No — *Skip to 33d*

b. How many weeks did this person work in 1979?
Count paid vacation, paid sick leave, and military service.

Weeks

c. During the weeks worked in 1979, how many hours did this person usually work each week?

Hours

d. Of the weeks not worked in 1979 (if any), how many weeks was this person looking for work or on layoff from a job?

Weeks

33. Income in 1979 —
Fill circles and print dollar amounts.
If not income was a loss, write "Loss" above the dollar amount.
If source exactly to not known, give best estimate. For income received jointly by two, distribute one, two, see instruction guide.

During 1979 did this person receive any income from the following sources?

If "Yes" to any of the sources below — How much did this person receive for the entire year?

a. Wages, salary, commissions, bonuses, or tips from all jobs . . . *Report amount before deductions for taxes, bonds, dues, or other items.*
- Yes → $ .00
- No

(Annual Amount – Dollars)

b. Own nonfarm business, partnership, or professional practice . . . *Report net income after business expenses.*
- Yes → $ .00
- No

(Annual Amount – Dollars)

c. Own farm . . .
Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper.
- Yes → $ .00
- No

(Annual Amount – Dollars)

d. Interest, dividends, royalties, or real estate income . . .
Report even small amounts credited to an account.
- Yes → $ .00
- No

(Annual Amount – Dollars)

e. Social Security or Railroad Retirement . . .
- Yes → $ .00
- No

(Annual Amount – Dollars)

f. Supplemental Security (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments . . .
- Yes → $ .00
- No

(Annual Amount – Dollars)

g. Unemployment compensation, veterans' payments, pensions, alimony or child support, or any other sources of income received regularly . . .
Include lump-sum payments such as money from an inheritance or the sale of a home.
- Yes → $ .00
- No

(Annual Amount – Dollars)

33. What was this person's total income in 1979?
Add entries in questions 32a through g, subtract any losses.

$ .00
(Annual Amount – Dollars)

If total amount was a loss, write "Loss" above amount.

OR ○ None

Page 7

15. same as in 1970.

16. same as in 1970.

17. same as in 1970.

18. same as in 1970.

19. resembles a question asked in 1970, but then it was asked only of persons less than 65 years old and was concerned only with a work disability. The 1980 question tested poorly, but so many public agencies need disability data that the question will appear anyway.

20. same as in 1970.

21. same as in 1970.

22. asked in 1970, but in 1980 respondents are also asked to write in the number of hours worked.

23. same as in 1970.

24a. a new question which attempts to measure average time spent getting to work.

24b. same as in 1970 but with the additional categories of truck, van, motorcycle, or bicycle.

24c & d. a new series of questions to measure the extent of carpooling.

25. same as in 1970.

26. same as in 1970.

27. same as in 1970.

28. resembles a question asked in 1970, but the words "... this person" have been substituted for the pronoun "he" in the questions on occupation, industry, and income.

29. same as in 1970.

30. same as in 1970.

31a & b. same as in 1970.

31c & d. new questions to measure part-time workers and the extent of unemployment in the previous year.

32. similar to 1970 except that the question has been recast as "income" instead of "earnings" and "interest, dividends ..." and "unemployment compensation ..." have been separated.

33. appeared in 1970 in slightly different form as part of the earnings question. This is the last question. The questions about population characteristics are repeated for up to seven persons in the household. If there are more than seven persons in a household an enumerator calls and tabulates responses of the additional persons.

Census Products and Services

Were the Census Bureau to print on paper all of the possible data tabulations from the 1980 Census, it would probably be the end of every tree on earth. Fortunately, only a tiny fraction of the data obtained from the census is available in paper form.

Nevertheless, the amount is enormous and has doubled with every recent census. In 1950, approximately 50,000 pages were printed, in 1960 there were 100,000 pages, and in 1970, 200,000 pages. Trying to slow this geometric growth, the Census Bureau plans to print only about 250,000 pages of reports for the 1980 Census.

The printed reports will be published in three major series—"preliminary," "advance," and "final." The preliminary reports, printed in the early fall of 1980, will show only the unofficial population and housing counts as compiled in the census field offices. Those reports will be superseded in the spring of 1981 by the advance reports containing official population and housing counts for all political subdivisions such as counties, towns, cities, and villages.

During 1981 and 1982, the final population and housing characteristics reports will be published. The less detailed reports will be available first, and the most detailed later in 1982. Preliminary and advance reports are sold by the Subscribers Services Section (Bureau of the Census, Washington, D.C. 20233), but the final reports are sold by the Superintendent of Documents (U.S. Government Printing Office, Washington, D.C. 20402). All publications and data files of the Census Bureau are listed in the agency's annual catalog, which has quarterly and monthly supplements. Order forms for any Bureau publications may be obtained without charge from the Subscribers Services Section. Appendix A (pages 34-35) gives titles of the various series and approximate dates when they will be available. Figure 3 illustrates how data are presented in printed reports and on computer tape.

Printed census publications can be found in the 117 libraries around the country designated as census depository libraries and sometimes in the more than 1,000 other government depository libraries. In addition, all Bureau reports are sent to each of the Census Bureau's 12 regional offices and the 43 Department of Commerce district offices. Appendix B (pages 36-38) gives addresses of these offices.

Statistics are also provided on computer tape and microfiche. Microfiche is such an efficient and permanent storage medium that all of the printed final reports will also be available from the Subscribers Services Section on microfiche. Even reports that are out of print can be obtained on microfiche. In addition, a substantial amount of the data on the computer tapes will be transferred directly from the magnetic tape to microfiche. As paper becomes increasingly expensive and difficult to obtain, the Census Bureau can be expected to provide more tabulations on microfiche alone.

Computer tape

Since 1970, more census data have been sold on computer tape than any other medium. After 1980, at least 90 percent of all census data tabulations purchased will be on computer tape. For those with access to a computer, which includes a growing number of users, this medium is the most inexpensive and efficient way to buy census data.

Most census computer tapes are called "summary" tapes because they contain only tabulations of data summarized for various geographical areas. Beginning in late 1980, summary tape data will be available for public use in five sets of tapes known as summary tape files (see Appendix A, page 35). Like the printed report series, the later

Figure 3. Census Printed Reports and Computer Tapes

Table P-3. **Labor Force Characteristics of the Population:**

[Data based on sample, see text. For minimum base for deri

Census Tracts	Dubuque – Con			
	Tract 0007	Tract 0008	Tract 0009	Tract 0010
EMPLOYMENT STATUS				
Male, 16 years old and over	3 521	2 216	1 945	101
Labor force	2 572	1 848	1 394	51
Percent of total	73.0	83.4	71.7	50.5
Civilian labor force	2 565	1 844	1 394	51
Employed	2 498	1 803	1 363	51
Unemployed	67	41	31	

Sample of a census printed report. This shows how data are printed for each of the approximately 40,000 census tracts in the U.S.

```
001040060                                    1250  0010
000000000900000000000013310000000000032465000
000001762500000000000075000000000000001080000
023000000000000002000000000000000060000000000
```

Census Summary Computer Tape Data. Computer programs convert this raw data into more readable formats.

tape files will contain progressively more detailed information for larger areas. The first two summary tape files will contain only data from the 100 percent questions, but these data will be tabulated for very small units of census geography.

The next three files will contain more detailed tabulations from the long form given only to a sample of the population. The most detailed demographic information will be on the fifth summary tape file, which will contain summaries for only states, very large cities, and metropolitan areas. This last summary tape file should be available by the end of 1982.

Technological advances have enabled the Census Bureau to provide on one reel of tape the same data that in 1970 would have required four reels. Since the price of a reel of computer tape has increased only slightly, the result is that the cost of acquiring a complete set of the publicly available census tapes has been reduced very substantially from what it was after 1970. This cost reduction will enable more researchers than ever before to access the information and certainly broaden the use of census statistics.

Even with the cost reduction, however, the use of computer tapes still requires a fairly high level of technical expertise and a reasonably sized computer. We are not yet at the point where census tapes can be used on small home computers.

Data User Services Division

Recognizing the need to provide technical assistance to the public, the Census Bureau has created the Data User Services Division. With a staff of more than 50 professionals, this division has five separate groups working directly on the 1980 Census products and services. Figure 4 shows the organization of the Data User Services Division. The dotted lines indicate sections with only some program administrative responsibility; staff members of State Data Centers and Summary Tape Processing Centers are not Census Bureau employees, and Regional Data User Services Officers are employees of the Census Bureau's field division.

The **Customer Services Branch** is responsible for selling computer tapes, census maps, and other census-related products. It is in effect the retail store for all census products except printed reports, which are sold by the Government Printing Office. The Customer Services Branch also provides the technical documentation and explanatory material necessary for using computer tapes.

The **User Training Branch** provides a wide variety of conferences and seminars designed to acquaint people with the census and also to train them in the use of census tapes and reports. Beginning in September, 1979, the Bureau will hold a series of more than 100 one-day conferences throughout the country to explain how to obtain and use the statistics from the 1980 Census. More detailed and longer training programs will be held at the Census Bureau's main office in Suitland, Maryland.

Many of these conferences or seminars will be held jointly with one of the Census Bureau's 12 regional offices. In each of these offices there is a full-time person to answer questions about census products (see Appendix B, page 36). The purpose of this regional staff is basically to make it more convenient for someone who needs census information.

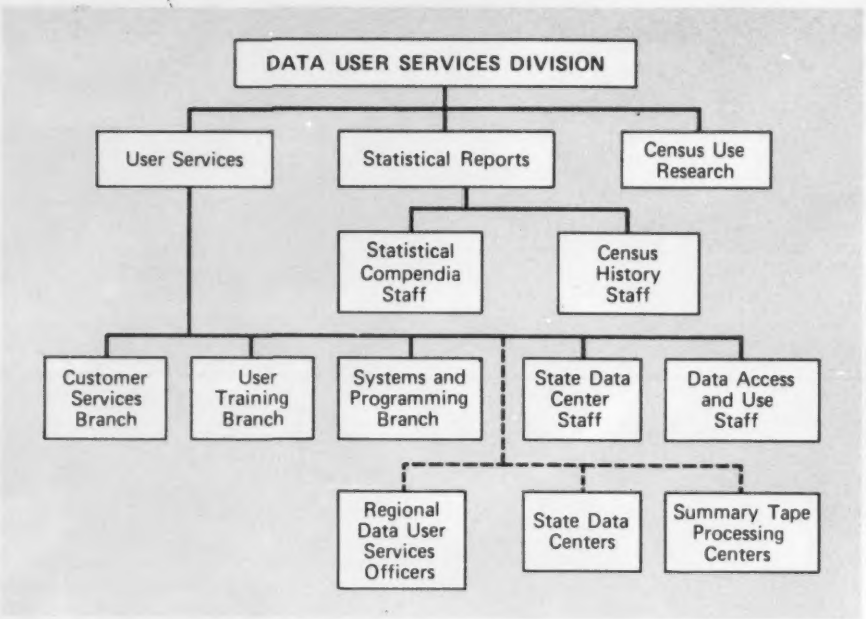
Another program with the same objective is the **State Data Center Program.** This program is a cooperative arrangement with a designated state agency to provide at least one place in each state where people who need census information can go. In addition to having complete census information for that state, each center is expected to provide technical assistance and some training programs. A network of substate affiliated data centers will be established by each of the State Data Centers to more directly assist local governments and people who need data on local areas. An up-to-date list of State Data Centers can be obtained free of charge from the Data User Services Division at the address given at the end of Appendix B (page 38).

The **Data Access and Use Staff** prepare the guides, indexes, and manuals that are useful for, and sometimes essential to, understanding census statistics. These guides, available from the Superintendent of Documents, provide lists of the data tabulations available on tape, microfiche and printed report indexes of the subject matter, and technical explanations of the publicily available computer tapes. Two general and widely distributed booklets are "The Census Users Guide" and the "Introduction to 1980 Census Products & Services."

The **Systems and Programming Branch** is developing publicly available computer programs to process the summary tapes from the census. These programs will perform a variety of tasks such as putting the data into a different format, selecting specific kinds of data, merging data from different tapes, or combining information for different geographic areas. The programs can be purchased early in 1980 so that buyers can try them out on computer tapes made for testing purposes from the Richmond Dress Rehearsal Census.

There are three other groups in the Data User Services Division, which, while not directly involved in 1980 Cen-

Figure 4. Data User Services Division: U.S. Bureau of the Census

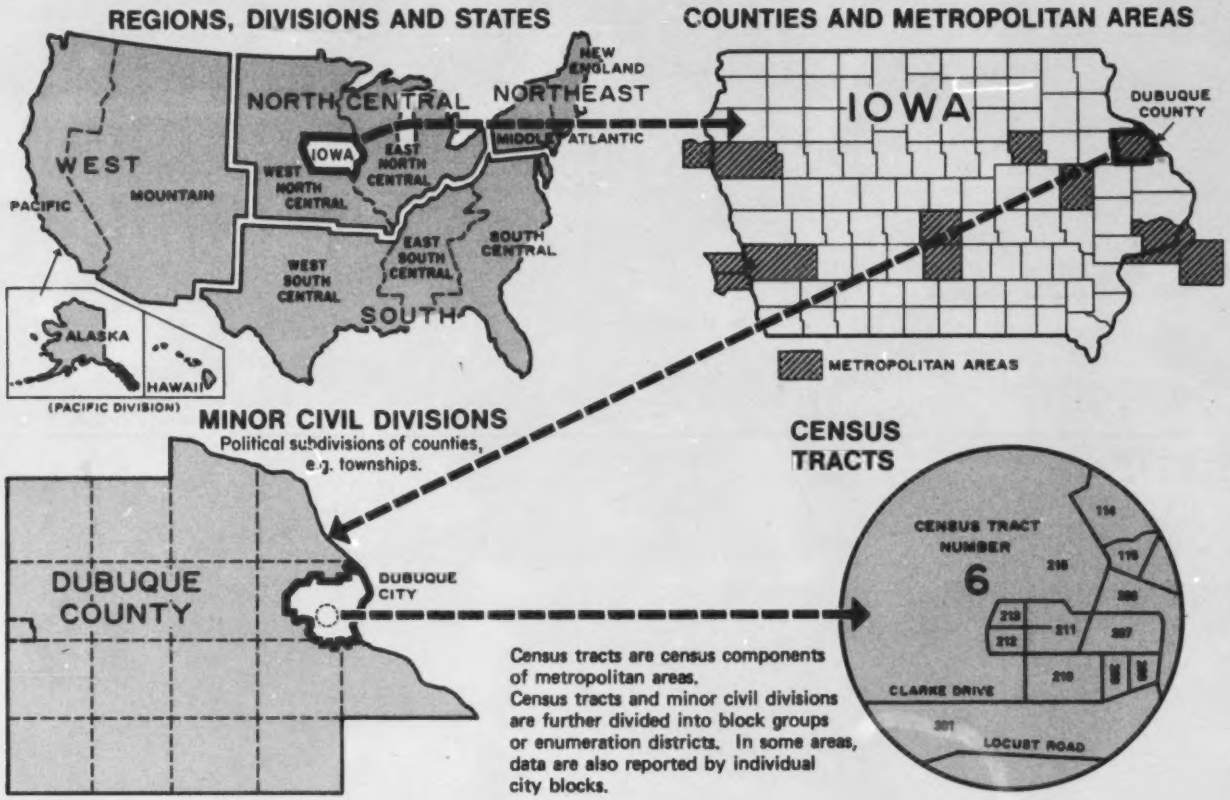


sus products, perform important functions related to the census. The **Statistical Compendia Staff** annually prepare one of the country's most widely used reference works, the *Statistical Abstract of the United States*. They also compile the *County and City Data Book* as well as several other reference works. The **Census History Staff** prepare a detailed procedural history of each census as well as keeping historical records of other Census Bureau activities. **Census Use Research** conducts basic research into the ways in which census information is put to use, publishing the results.

One of the new programs started after the 1970 Census and continuing for 1980 is the **Summary Tape Processing Center Program.** This program is administered by the **State Data Center Staff** but does not involve Bureau personnel. It is a program for recognizing and listing organizations or individuals who have census computer tapes and are willing to process them for others. There are currently 86 processing centers listed, and more are expected when the 1980 computer tapes become available. An up-to-date list of these centers can also be obtained from the Data User Services Division (Appendix B, page 38).

While the Data User Services Division is set up to answer virtually any question about 1980 Census products, it is not their function to be experts in the data tabulations themselves. This is the role of people in the divisions directly involved with the content of the census —the Population, the Housing, and the Geography Divisions. Within each of these divisions, there are subject-matter specialists who can answer questions

Figure 5. Census Geography



about any aspect of the census content. For example, there are specialists in occupational data, income statistics, and migration in the Population Division, and experts in housing characteristics such as value, rent, vacancy, and building type in the Housing Division. The specialists in the Geography Division answer questions relating to such matters as computer mapping, census boundaries, and land area measurements.

A list of the publications of the Data User Services Division is shown in Appendix C (page 39). One of these publications, which is free, *Telephone Contacts for Data Users*, is a list of subject-matter specialists throughout the Bureau of the Census.

Census Geography

There was a simpler time, before computers were in general use, when "all" that the Geography Division of the Census Bureau had to do was prepare by hand the thousands of maps needed for the census. This work is still done by the Geography Division in Jeffersonville, Indiana, but at the same time the Bureau has made a substantial commitment to computer-assisted geographic processing.

The decision to take the 1970 and succeeding censuses primarily by mail required the Geography Division to develop a way to quickly identify addresses within units of census geography. The solution was to create a computerized address coding guide so that, given an individual address, the computer could search a list of address ranges with census geographic codes attached and locate the address with the proper census geography. This address coding guide has been improved and updated to the point where a majority of all 1980 Census questionnaires will be coded to the appropriate geographic area by computer.

The results of the census will be published for many thousands of different geographic areas. First, the data will be tabulated for the U.S. total, the 50 states, the District of Columbia, Puerto Rico, the outlying areas such as Guam, the four census regions, and the nine census divisions. Regions and divisions are groups of states (see Figure 5, upper left corner). There will also be data for 3,137 counties and 285 metropolitan areas (Figure 5, upper right corner).

Towns, townships, and other small political units within counties are called minor civil divisions. All counties are subdivided in some fashion and census data will be published for about 33,000 of these sub-county units (Figure 5, lower left corner). In addition, data will be tabulated for about 20,000 concentrations of population, some incorporated as villages or cities and some with no legal boundaries, all of which are called "places."

All metropolitan areas are subdivided by the Census Bureau into census tracts (Figure 5, lower right corner). These tracts, created for statistical purposes only, contain an average of about 4,000 persons and are designed to be relatively homogeneous in terms of population and housing characteristics. Census tracts and minor civil divisions are further subdivided into block groups or enumeration districts. An enumeration district is the area covered by one enumerator during the census period. It contains an average of about 800 persons, or 250 households. Since most of the census will be conducted by mail, the equivalent of the enumeration district in the mail census areas is the block group. Here enumerator work assignments are sets of addresses. The block group also contains about 800 persons and, as the name suggests, it is made up of a group of city blocks. There will be about 275,000 block groups and enumeration districts for the 1980 Census. The smallest unit of census geography for which data will be available is the city block. Containing an average of

only about 60 people, there are two and a half million blocks. All places of 10,000 or more persons will have data for city blocks as well as some additional areas that have specially contracted with the Census Bureau.

Address coding

Every address for which there is a census questionnaire has to be coded with a block number, block group number, census tract number, and a code to identify its appropriate minor civil division, place, county, metropolitan area, and state. This is to make sure that when the questionnaire for 4222 Sheridan Street is tabulated, for example, it is counted as in the block bounded by Sheridan Street, Queens Chapel Road, Tuckerman Street, and Forty-third Avenue. Then this block must be credited to the incorporated place known as University Park and this in turn located in Prince Georges County in the state of Maryland. That address also needs to be counted in its proper block group and census tract. Pre-coding over 70 million addresses in this fashion before the questionnaires are mailed will require 2,000 hours of computer time. For the rest of the some 80 million questionnaires that are expected to be mailed, enumerators will enter this coding by hand when they call to collect the questionnaires, as noted earlier.

The address coding guide (containing ranges of addresses but no individual addresses), which was created by the Census Bureau in order to mail census forms, has been available to the public since the early 1970s. Since then, this innovation has caused a revolution in the processing of address-based information. Thousands of organizations both public and private have been able to process their customer or other address-based records more quickly and efficiently than ever before.

A bank, for example, can classify its customer list by census tracts using the address coding guide. By examining demographic data for these tracts, banks can locate their markets precisely and know where the best places are to put new branches or automated cash dispensing devices.

Municipal governments are also large users of address coding. The address of each theft or other criminal act recorded by the locality can be located by city block to quickly identify high crime areas and reassign police patrols. Also, by coding welfare records, caseworkers can be more efficiently assigned to neighborhoods. A large city carries on many public functions and the ability to use census geographic tools to match addresses from, say, building permit files with those of utility records, permits great flexibility and provides an opportunity to improve service without additional cost.

The address coding guides and address matching programs to be used in the 1980 Census will be available to the public in late 1979. The extension of the area covered by the address coding guides and other technical improvements will substantially increase the value of this innovation in geographical processing. However, in spite of this computerized revolution, the Census Bureau still continues to regard individual addresses as confidential and never sells or otherwise provides them to persons or organizations outside the Census Bureau.

The whole array of coding guides, matching programs, and other computerized geographical products is known as GBF/DIME, which stands for Geographic Base Files/Dual Independent Map Encoding. The intricacies of GBF/DIME are often the subject of training programs given by the Data User Services Division. Several updated booklets explaining the technical details will also be available in the coming months from the Subscribers Services Section.

Many of the computerized geographic products for the 1980 Census are prepared through a cooperative effort be-

tween the Census Bureau and local government organizations. Local agencies in some 236 of the country's 285 metropolitan areas have actively participated for several years in creating, updating, or expanding the geographic base files for their communities. Having local people carry out this work provides significant improvements in the data quality since they are the most knowledgeable about their area. Early local involvement also creates the best possible environment for local review of the census results, thereby improving the overall quality of the census data.

1985 and Beyond

If the census is so important, why is there only one every ten years? That question has been asked every decade since the days of Ulysses S. Grant. Reapportionment is the answer, in large part. Redefining Congressional district boundaries is such a monumental and politically disruptive task that few people want to do it more than once every ten years.

But in 1976 Congress passed legislation mandating a census every five years beginning in 1985, but specifically prohibiting the mid-decade census from being used for reapportioning seats in the House of Representatives. In fact, the law does not require that the census of 1985 be exactly like the 1980 Census. The law is quite flexible on the way the mid-decade census can be taken, so long as the basic objectives are met of providing the data on population and housing characteristics needed for fund allocation and program administration.

Considering the billion-dollar price tag for the 1980 Census, it is very unlikely that the 1985 Census will be a complete count in the sense of giving a questionnaire to every household. It probably will be a sample census larger than the 50,000 households surveyed each month for the Current Population Survey, but smaller than the approximately 18 million households given a sample questionnaire in 1980. There certainly will be a printed report, microfiche, and computer tape publications program for 1985 but it will be smaller than that for the decennial census. Data from the 1980 Census will be published for city blocks; the smallest unit of geography for the mid-decade census probably will be large cities.

The authorization for a mid-decade census serves to confirm the Census Bureau's growth from an obscure branch of the Commerce Department to the central part of an emerging federal statistical system. Collecting and processing federal information are sure to become more centralized and coordinated with the growing demand for data for decision-making and the development of micro-computing to make using data a management tool.

Recently retired census planner David L. Kaplan has written:

"The census is no longer merely the source of interesting facts to put in the *Statistical Abstract* or an encyclopedia. It is now an action instrument which is critically involved in how the national pie—social, economic and political—is cut. This new role for the census, and of the Bureau of the Census, has changed the nature of the job and therefore the professional lives of those of us who work at it. Our shadowy existence in a world of passionate anonymity is gone.

The press and the public are beating a path to Suitland [Census Bureau headquarters]; so are mayors and Indian tribal leaders, the poor and the handicapped, the academicians and the planners, as well as the purveyors of statistical information, both retailers and wholesalers."

In its new role, the census comes in for its share of criticism and public scrutiny. Those who use demographic data may believe not enough information is collected or that it is made available too slowly and without sufficient explanation. Others may feel the census is too intrusive, that it favors some interests but ignores others, or costs too much to administer.

These charges are not new, but they have taken on a new intensity as the value of the data produced by the Census Bureau rises. Every census is subject to attack because it is such a large-scale and public event, and the Census Bureau is ill-equipped for political combat. The figures it produces may be used to allocate tens of billions of dollars, but the Bureau's actual budget is never more than a small fraction of one percent of federal expenditures. It commands the allegiance of no single slice of American society and has no interest group which works in its behalf. Rather, as its slogan suggests, the Bureau sees itself as "fact finder for the nation"—more of a messenger bringing information than a central decisionmaker.

The undercount

With new visibility, issues arise that never seemed that important before. One of those issues is the undercount. When only 97.5 percent of the population is counted in a census, the estimated 2.5 percent missed is called an undercount. Since so much money is now tied to the population count, there has been considerable discussion about adjusting for this undercount so that some areas will not lose funds to which they would be entitled if the count were perfect.

The only reason we know that there is an undercount is because the Census Bureau makes such an estimate based on the previous census in conjunction with administrative statistics. Various methods have been suggested for adjusting for the undercount, but questions arise with any method. For example, since there is a differential undercount between blacks and whites, males and females, old and young, should there be differential adjustments for each of these groups? If so, what about other population sub-groups?

In the end, differential undercount adjustments could come to be expected for hundreds of population groups and for each of tens of thousands of geographical units. It would be a truly monumental task—with the possibility of as much error as that caused by the undercount in the first place.

Adjustment for an undercount is fundamentally a political decision. But it is important that the data, however adjusted, not become "politicized." One of the reasons census figures have become so important in public allocation formulas is that they are free from any political or programmatic bias.

Other agencies with a specific program to administer also gather statistics about their activities, but the natural tendency is for them to avoid gathering or publishing figures that might reflect badly on the agency's performance. Moreover, these agencies generally

gather data from institutions, or users of services, whereas the Census Bureau counts everyone in a census, or in a survey queries individuals selected at random from a sample which covers the entire population. Federal spending programs develop loyalists and constituencies who generally do not like to admit that there may no longer be a need for their programs. The Bureau of the Census, on the other hand, exists by law to gather statistics only with regard to their timeliness, usefulness, and accuracy.

New pressures

The Census Bureau may be an innocent victim of the fragmentation of American society in the past decade. Those groups which David Kaplan describes as beating a path to the Census Bureau's door represent different interests, each with its own vision of society and its own needs.

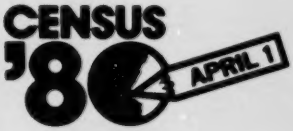
In the past, it has been the role of political leadership to divide the national pie. The choices were simpler, because society was simpler. Now, in the words of Bryant Robey, editor of *American Demographics*, "National statistics may be replacing national consensus as the basis for public policy. If political leadership cannot summon the support of the American people as whole, the result is that it must mediate among the competing claims of different groups for a share of federal benefits."

Census statistics may offer federal officials a rational basis for making allocation decisions, but "the focus of debate then shifts from those who make the decisions to those who gather the statistics. This trend is forcing the nation's chief statistical agency to change rapidly," Robey has written.

How the Census Bureau will survive these new pressures is as yet unclear. American society is not likely to return to simpler days, nor is the Census Bureau likely to return to its earlier days. Although the Bureau has faced scrutiny every ten years, the 1980 Census is a watershed because it is the first to be taken since passage of the revenue-sharing program, which for the first time allows for wholesale shifts in funds from federal to local levels without a programmatic base. It is also being taken at a time of growing attention to different ethnic groups, to the equality of women, to concern for the handicapped, and to public suspicion and scrutiny of the role of the federal government.

This is also a census that will measure some of the most dramatic demographic changes in our nation's history. Though many of the shifts are known already, the 1980 Census will be the first time these data have been gathered on a national scale in such depth.

This confluence of events—demographic, political, and statistical—will together make the 20th decennial census of 1980 the most dramatic, important, and closely observed in U.S. history since the first census of 1790. Its results may not make a best seller and they won't be made into a TV special to challenge the record audience of "Roots." But you will be using them and reading about them for years—until the next census. □



"Wonderful effect of the appearance of the census enumerator."

Early decennial censuses beginning in 1790 were ad hoc affairs conducted by U.S. Marshalls. Special census agents were hired for the first time in 1880, as illustrated in the above cartoon published in that year. In an essentially rural, lightly populated country, the census was far from the massive operation it has become.

Appendix A. Printed Reports and Computer Tapes for the 1980 Census

Population and Housing Census (PHC) Series

PHC(P) *Preliminary Population and Housing Unit Counts.*
Preliminary population and housing unit counts.
Summer-Fall 1980.*

PHC(V) *Final Population and Housing Unit Counts.*
Advance official population and housing unit counts.
Fall 1980-Winter 1981.

PHC(1) *Block Statistics.*
100-percent population and housing data for blocks in blocked areas.
Winter-Summer 1981.

PHC(2) *Census Tracts*
100-percent and sample data.
Fall 1981-Summer 1982.

PHC(3) *Summary Characteristics for Governmental Units.*
100-percent and sample data.
Fall 1981-Spring 1982.

Population Census (PC) Series

PC(1)-A *Number of Inhabitants.*
Population counts.
Fall 1980-Spring 1981.

PC(1)-B *General Population Characteristics.*
100-percent data.
Winter-Summer 1981.

PC(1)-C *General Social and Economic Characteristics.*
Sample data.
Fall 1981-Spring 1982.

PC(1)-D *Detailed Population Characteristics.*
Sample data.
Fall 1981-Spring 1982.

PC(2) *Subject Reports.*
Tentative release: 1982.

Housing Census (HC) Series

HC(1)-A *General Housing Characteristics.*
Counts of housing units and 100-percent housing data.
Winter-Summer 1981.

HC(1)-B *Detailed Housing Characteristics.*
Sample data.
Fall 1981-Spring 1982.

HC(2) *Metropolitan Housing Characteristics.*
Sample data.
Fall 1981-Fall 1982.

HC(3) *Subject Reports.*
1982.

HC(4) *Components of Inventory Change.*
1982.

HC(5) *Residential Finance.*
1982.

Public-Use Computer Summary Tape Files (STFs)

STF 1 Population and housing counts and limited 100-percent characteristics down to the block level.
Fall 1980-Summer 1981.

STF 2 General 100-percent characteristics down to the tract level and for places of 1,000 or more population.
Winter-Summer 1981.

STF 3 Sample tabulations for ZIP Code areas, enumeration districts, and block groups.
Fall 1981-Spring 1982.

STF 4 General sample tabulations down to the tract level.
Fall 1981-Spring 1982.

STF 5 Detailed sample tabulations for states, SMSAs (metropolitan areas), large cities, and counties.
Spring-Fall 1982

*Tentative availability dates are provided as ranges of dates since data for some states will be tabulated and released before other states, depending on the progress of field and coding operations.

Appendix B. Regional Data User Services Officers and U.S. Department of Commerce District Offices

Regional Data User Services Officers

ATLANTA
Wayne Wall
Bureau of the Census
1365 Peachtree Street, N.E., Room 625
Atlanta, Georgia 30309
(404) 881-2274

BOSTON
Judith Cohen
Bureau of the Census
441 Stuart St., 10th Floor
Boston, Massachusetts 02116
(617) 223-0668

CHARLOTTE
Lawrence McNutt
Bureau of the Census
Suite 800, 230 South Tryon Street
Charlotte, North Carolina 28202
(704) 371-6144

CHICAGO
Steve Laue
Bureau of the Census
55 E. Jackson Blvd., Suite 1304
Chicago, Illinois 60604
(312) 353-0980

DALLAS
Valerie McFarland
Bureau of the Census
1100 Commerce Street, Room 3C54
Dallas, Texas 75242
(214) 749-2394

DENVER
Gerald O'Donnell
Bureau of the Census
575 Union Blvd., P.O. Box 25207
Denver, Colorado 80225
(303) 234-5825

DETROIT
Timothy Jones
Bureau of the Census
Federal Bldg. & U.S. Courthouse, Rm. 565
231 W. Lafayette Street
Detroit, Michigan 48226

KANSAS CITY
Kenneth Wright
Bureau of the Census
One Gateway Center
4th and State Streets
Kansas City, Kansas 66101
(816) 374-4601

LOS ANGELES
E. J. (Bud) Steinfeld
Bureau of the Census
11777 San Vicente Blvd., 8th Floor
Los Angeles, California 90049

NEW YORK
Jeffery Hall
Bureau of the Census
Federal Office Bldg., Room 37-130
26 Federal Plaza
New York, New York 10007
(212) 264-3870

PHILADELPHIA
David Lewis
Bureau of the Census
William J. Green, Jr. Federal Bldg.
600 Arch Street, Room 9244
Philadelphia, Pennsylvania 19106
(215) 597-8314

SEATTLE
Larry Hartke
Bureau of the Census
915 Second Avenue, Room 312
Seattle, Washington
(206) 442-7080

U.S. Department of Commerce District Offices

ALBUQUERQUE
Suite 1015, 505 Marquette Ave., N.W.
Albuquerque, New Mexico 87102

ANCHORAGE
412 Hill Bldg.
Anchorage, Alaska 99501

ATLANTA
Suite 600, 1365 Peachtree St., N.E.
Atlanta, Georgia 30309

BALTIMORE
Room 415, U.S. Customhouse
Baltimore, Maryland 21202

BIRMINGHAM
Suite 200, 908 South 20th St.
Birmingham, Alabama 35205

BOSTON
441 Stuart St.
Boston, Massachusetts 02116

BUFFALO
1312 Federal Building
Buffalo, New York 14202

CHARLESTON
500 Quarrier St.
Charleston, West Virginia 25301

CHEYENNE
2120 Capitol Ave.
Cheyenne, Wyoming 82001

CHICAGO
55 East Monroe St.
Chicago, Illinois 60603

CINCINNATI
550 Main St.
Cincinnati, Ohio 45202

CLEVELAND
666 Euclid Ave.
Cleveland, Ohio 44114

COLUMBIA
2611 Forest Dr.
Columbia, South Carolina 29204

DALLAS
1100 Commerce St.
Dallas, Texas 75242

DENVER
Room 165, New Customhouse
Denver, Colorado 80202

DES MOINES
210 Walnut St.
Des Moines, Iowa 50309

DETROIT
Room 445, Federal Bldg.
Detroit, Michigan 48226

GREENSBORO
Room 203, Federal Bldg.
Greensboro, North Carolina 27402

HARTFORD
450 Main St.
Hartford, Connecticut 06103

HONOLULU
300 Ala Moana Blvd.
Honolulu, Hawaii 96850

HOUSTON
515 Rusk St.
Houston, Texas 77002

INDIANAPOLIS
46 E. Ohio St.
Indianapolis, Indiana 46204

LOS ANGELES
11777 San Vincent Blvd.
Los Angeles, California 90049

MEMPHIS
147 Jefferson Ave.
Memphis, Tennessee 38103

MIAMI
25 W. Flagler St.
Miami, Florida 33130

MILWAUKEE
517 E. Wisconsin Ave.
Milwaukee, Wisconsin 53202

4C

MINNEAPOLIS
110 S. Fourth St.
Minneapolis, Minnesota 55401

NEWARK
4th Floor, Gateway Bldg.
Newark, New Jersey 07102

NEW ORLEANS
432 International Trade Mart
New Orleans, Louisiana 70130

NEW YORK
26 Federal Plaza, Foley Sq.
New York, New York 10007

OMAHA
Suite 703A, 1815 Capitol Ave.
Omaha, Nebraska 68102

PHILADELPHIA
9448 Federal Bldg.
Philadelphia, Pennsylvania 19106

PHOENIX
201 North Central Ave.
Phoenix, Arizona 85073

PITTSBURGH
1000 Liberty Ave.
Pittsburgh, Pennsylvania 15222

PORTLAND
Room 618, 1220 S.W. Third Ave.
Portland, Oregon 97204

RENO
300 Booth St.
Reno, Nevada 89509

RICHMOND
400 North 8th St.
Richmond, Virginia 23240

ST. LOUIS
120 S. Central Ave.
St. Louis, Missouri 63105

SALT LAKE CITY
125 S. State St.
Salt Lake City, Utah 84138

SAN FRANCISCO
450 Golden Gate Ave.
San Francisco, California 94102

SAN JUAN
Room 659, Federal Bldg.
San Juan, Puerto Rico 00918

SAVANNAH
125-29 Bull St.
Savannah, Georgia 31402

SEATTLE
1700 Westlake Ave., North
Seattle, Washington 98109

Other sources of 1980 Census information (see text, pages 26 and 27):

The list of **State Data Centers** and **Summary Tape Processing Centers** changes frequently. An up-to-date list can be obtained without charge from:

Martha Wyeth
Data User Services Division
Bureau of the Census
Washington, D.C. 20233
(301) 763-2400

Appendix C. Census Reference Works

The following publications are available from:

Subscribers Services Section (Publications)
Bureau of the Census
Washington, D.C. 20233
(301) 763-7472

The 1980 Census—Introduction to Products and Services, October 1979.

The 1980 Census Users Guide, October 1979.

Index to 1980 Census Tapes and Publications.

The Subscribers Services Section can also supply publication order forms, free of charge, which include prices and availability for the above three reference works, all the census reports listed in this Appendix, and most other census-related government publications.

Telephone Contacts for Data Users, 4 pages, updated periodically, free.

1980 Census Update, quarterly supplement to the *Data User News*, free.

Data User News, monthly newsletter, $4.00 per year, single copies 25 cents each.

Factfinder for the Nation, issued irregularly, each issue 4 pages, topics include population, housing, and geography, 25 cents each.

Data Access Description No. 37: Current Survey Statistics Available from the Bureau of the Census, May 1977, $1.30. Other *Data Access Descriptions* will be available that describe various aspects of the 1980 Census.

Reference Manual on Population and Housing Statistics from the Census Bureau, April 1977, $2.00.

The following publications are available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Bureau of the Census Catalog, GPO No. C3.163/2, annual with monthly and quarterly supplements, $19.00 per year.

Statistical Services of the United States Government 1976, GPO No. 041-001-00100-0, 234 pages, $3.40.

Federal Statistical Directory 1976, GPO No. 041-001-00125-5, 248 pages, $2.50.

The Methods and Materials of Demography, GPO No. 003-001-02289-3, 2 volumes, $15.75 per set.

Statistical Abstract of the United States 1978, GPO No. 003-024-01647-8, 1,057 pages, $8.00.

County and City Data Book 1977, GPO No. 003-024-00121-7, 1,011 pages, $19.50.

The following publications are available from the sources noted:

American Demographics magazine, published monthly except combined July/August and November/December issues, by American Demographics, Inc., P.O. Box 68, Ithaca, N.Y. 14850. April 1979 was a special issue on the census and there is a monthly column which discusses various aspects of the 1980 Census. $30.00 per year, single copies $4.00 each.

Counting the People in 1980: An Appraisal of Census Plans, by the National Research Council, Office of Publications, National Academy of Sciences, 2101 Constitution Avenue N.W., Washington, D.C., 20418, $7.25.

Information and Allocation: Two Uses of the 1980 Census, by Nathan Keyfitz, May 1979 issue of *The American Statistician*, published by The American Statistical Association, 806-15th Street N.W., Washington, D.C., 20005. $10.00 per year, single copy prices on request.

Recent Population Bulletins and PRB Slide Series

Beginning October 1, 1979, the prices for all *Population Bulletins* are $2.00 per single copy; 2-49 copies, $1.75 each; 50 copies or more, $1.50 each. Sets of 35mm colored slides for the figures and tables appearing in the *Bulletin* are available as indicated.

Volume 31

No. 1 *Infant Mortality—Progress and Problems*, by Leon F. Bouvier and Jean van der Tak

No. 2 *Adolescent Pregnancy and Childbearing—Growing Concerns for Americans*, by Wendy H. Baldwin, May 1977 updated reprint (13 slides, $6.50)

No. 3 *Rural Renaissance in America? The Revival of Population Growth in Remote Areas*, by Peter M. Morrison, with Judith P. Wheeler (6 slides, $3.00)

No. 4 *Can Third World Cities Cope?* by George J. Beier (5 slides, $2.50)

No. 5 *Communicating Population and Family Planning*, by Robert P. Worrall (3 slides, $1.50)

No. 6 *Fertility Regulation Technology: Status and Prospects*, by Sheldon J. Segal and Olivia Schieffelin Nordberg (2 slides, $1.00)

Volume 32

No. 1 *The Value and Cost of Children*, by Thomas J. Espenshade (27 slides, $13.50)

No. 2 *Epidemiologic Transition in the U.S.: The Health Factor in Population Change*, by Abdel R. Omran. Sold out.

No. 3 *Changing Contraceptive Patterns: A Global Perspective*, by Dorothy Nortman (13 slides, $6.50)

No. 4 *International Migration: Yesterday, Today, and Tomorrow*, by Leon F. Bouvier, with Henry S. Shryock and Harry W. Henderson, August 1979 updated reprint (13 slides, $6.50)

No. 5 *Marrying, Divorcing, and Living Together in the U.S. Today*, by Paul C. Glick and Arthur J. Norton, February 1979 updated reprint (27 slides, $13.50)

No. 6 *Indonesia's Family Planning Story: Success and Challenge*, by Terence H. Hull, Valerie J. Hull, and Masri Singarimbun (20 slides, $10.00)

Volume 33

No. 1 *Boys or Girls? Parents' Preferences and Sex Control*, by Nancy E. Williamson (5 slides, including frontispiece photo, $2.50)

No. 2 *Canada's Population: Growth and Dualism*, by Roderic P. Beaujot (14 slides, $7.00)

No. 3 *What Will a ZPG Society be Like?* by Lincoln H. Day (8 slides, $4.00)

No. 4 *Declining World Fertility: Trends, Causes, Implications*, by Amy Ong Tsui and Donald J. Bogue (15 slides, $7.50; excludes two Appendix tables)

No. 5 *Mexico's Population Policy Turnaround*, by John S. Nagel (10 slides, $5.00)

No. 6 *World of Children*, by Magda Cordell McHale and John McHale, with Guy F. Streatfeild (5 slides, $2.50)

Volume 34

No. 1 *The Sunning of America: Migration to the Sunbelt*, by Jeanne C. Biggar (9 slides, $4.50)

No. 2 *Frustrated Fertility: A Population Paradox*, by Joseph A. McFalls, Jr. (3 slides, $1.50)

No. 3 *Resources, Environment, and Population: The Nature of Future Limits*, by Ronald G. Ridker and Elizabeth W. Cecelski (12 slides, $6.00)

No. 4 *The 1980 Census: The Counting of America*, by Peter K. Francese (7 slides, including 3 for Figure 2, $3.50).

Send orders with checks to: Circulation Department
Population Reference Bureau, Inc.
P.O. Box 35012
Washington, D.C. 20013

Population Reference Bureau, Inc.

The PRB gathers, interprets, and disseminates information on the facts and implications of national and world population trends. Founded in 1929, it is a private, nonprofit educational organization that is supported by grants and contracts, individual and corporate contributions, memberships, and sales of publications. It consults with other groups in the United States and abroad, operates information and library services, and issues the publications described on the outside back cover. The PRB also assists the development of population education through formal and nonformal programs.

Officer

Robert P. Worrall, *Acting President*

Trustees

*Conrad Taeuber, *Chairman of the Board and of the Executive Committee*
*Barbara L. Carter, *Secretary of the Board*
*Bert T. Edwards, *Treasurer of the Board*

Virginia R. Allan, *Michael P. Bentzen, Jessma O. Blockwick, Michael F. Brewer, James R. Echols, Patricia R. Hyatt, Kathleen McNamara, *Mildred Marcy, *Francis X. Murphy, David O. Poindexter, John Reid, Jack Rosenthal, Caroline S. Saltonstall, Thomas C. Sorensen, William O. Sweeney.

Advisory Committee

Sanuel Baum, Calvin L. Beale, Donald J. Bogue, Leon F. Bouvier, Lester R. Brown, Philander P. Claxton, Jr., Caroline S. Cochran, Mercedes B. Concepcion, Douglas Ensminger, Philip M. Hauser, Jack Henes, Carl A. Huether, Adenola A. Igun, Jose Ruben Jara, Sam Keeny, W. Parker Mauldin, Richard K. Manoff, M. A. Sattar, Benjamin Viel, Sloan R. Wayland.

*Members of the Executive Committee of the Board of Trustees.

1979 marks the Population Reference Bureau's 50th year of telling the world about population, PRB members regularly receive the most vital, up-to-date population information available from the authorities who write PRB's six annual POPULATION BULLETINS; from the monthly summaries of population-related events reported in the international news magazine INTERCOM; from the widely used WORLD POPULATION DATA SHEET wall chart, a yearly update of demographic data for some 162 countries; and from occasional PRB REPORTS on timely topics in the field. Teacher, student and library members also receive the population education newsletter INTERCHANGE plus read-to-use classroom materials, four times during the school year.

PRB also issues special publications such as the POPULATION HANDBOOK, a readable guide to basic demographic concepts; the graphic annual series of topical population education WALL CHARTS; and the SOURCEBOOK ON POPULATION.

For still more population information, PRB's Library and Information Service stands ready to answer telephone, written, or on-site queries, backed by one of the world's oldest and most complete population libraries and contacts with population people throughout the world.

Members of the Population Reference Bureau support an organization that is dedicated to the objective analysis and reporting of one of mankind's most compelling concerns.

Population Reference Bureau, Inc.
1337 Connecticut Avenue N.W.
Washington, D.C. 20036
(202) 785-4664
Cable address: POPREF WASHINGTON D.C.